THE BUILDER

A RECORD OF ARCHITECTURE & CONSTRUCTION

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THE BUILDER

A RECORD OF ARCHITECTURE AND CONSTRUCTION.

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HOUSING—NOW.

ON all sides we hear discussions on housing problems Before the war the matter reached an acute stage in rural districts, and the village cottage was becoming rarer and rarer because it paid no one to build small houses in localities which only produced agricultural wages. True, certain landowners who realised their responsibilities and took an interest in their tenants, and also some large firms anxious for the welfare of their work-people, built cottages and let them at a financial loss, but naturally such magnanimity had small limits compared with the size of the problem. Hence our crowded cities and the excessive rents charged for dwellings which are at least congested, if not insanitary. We are a supine and short-sighted nation, and it is only just dawning upon us that a great deal more depends upon housing than the mere personal comfort of the individual. Congested conditions mean the production of children of poor physique, and such children produce adults who, if not a charge upon the State, are at least no national asset. Further, it is not too much to say that bad housing is a large factor in the production of discontent, which is the greatest ally of industrial unrest and of vice in its many forms.

The Problem.

It would have paid the State to tackle the housing problem on a large scale many years ago, but we are not concerned with moralising on the past; we have to look at the present and future. And what are the present conditions? For more than four years no domestic building, apart from specific schemes for munition works, has taken place, though the growth of the population has, of course, continued, and moreover war activities, not to speak of the needs of our Allies, have absorbed a great many buildings previously used for ordinary domestic purposes. The result is evidenced by the difficulty in obtaining houses in almost every part of the country. An instance came before us the other day, in which the only room in a large town which the housing committee could find for a newly-arrived Government official was a small dressing-room between two and three miles from the centre, and the result of this condition of things leads to most excessive rentals and endless difficulties between landlords and tenants. Under the Housing Acts, going back to 1890, Local Authorities have possessed considerable powers with regard to the erection of working-class houses, but in spite of the extension of powers conferred by the later Housing and Town Planning Act of 1909, very little has really been done to meet the needs of the situation as it stood five years ago, and when it was realised in 1915 that there would be no dearth of employment, all activities in this direction were stopped. The position now is that nearly half a million new houses are wanted at present, and that on demobilisation a further number, not far short of a quarter of a million, will be required. This matter was the subject of a Local Government Board inquiry in the summer of 1917, and the proposal now is, as will be well known to most of our readers, that the Local Authorities should arrange for the erection of the houses required in their districts, such houses to be let at rentals obtainable, the inevitable loss on capital interest to be borne to the extent of 25 per cent. by the Local Authority and 75 per cent. by the State. As things stand, there is no compulsion on the Local Authority to build, and if we may judge from the use made of previous powers, it seems doubtful whether the prospect of an addition to the rates will be sufficient inducement to ensure the provision of these houses so urgently required. Assuming, however, that our forecast is too gloomy and that all the authorities display every eagerness and enthusiasm, there are other matters to be considered, among the foremost of which are labour and materials. Not only will these be at a premium, but the erection of half a million substantial cottages will require much time and will absorb energy and material which will be sorely wanted in other directions. Our schools and hospitals, to mention only two public institutions, are crying out for consideration, while building repairs to property of all kinds are in many cases a matter of vital necessity. Again, the need will admittedly be much greater after demobilisation than it is now, and as we understand it, these building schemes are to be initiated by the Local Authorities at such time as arrangements have been made for the purchase of sites, the preparation of plans and the consideration of tenders. We feel that some accelerating process is essential. The hour glass of war is running down, and the final grains are disappearing with a rapidity which should vitalise the most inert into action. Hence we say *build now*. The difficulties of such a course are great, but will they be less for some considerable time, and is not time of the utmost importance if our men are to return to conditions such as they have a right to demand?

Temporary Buildings.

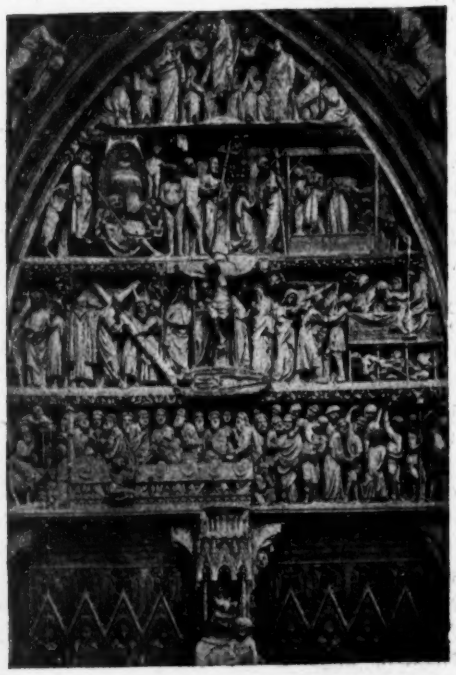
Let us take as an example the American commander who recently found himself on the green fields of France three days in advance of his regiment and without any accommodation arranged for them; but when the men arrived his energy had resulted in the production of a completely equipped camp. We do not suggest that camp quarters would meet housing needs, but it is at least worth considering whether semi-temporary buildings, calculated to last say five years, might not be erected in a good many places instead of permanent brick structures. Before us are many successful schemes prepared for munition workers, which are reported on as quite satisfactory from a sanitary and domestic standpoint. The State might immediately commandeer certain land indicated as desirable by the Local Authority, which would have to make a report in a short, limited period. The plots for individual houses would be suitable in situation and area for the ultimate erection of permanent homes, and payment to land owners would be made by the State with appeal to arbitration subsequent to the transfer of ownership. The State would then erect upon the land, through the agency of architects and contractors, all over the country temporary cottages in all urgent cases and arrange for State assistance in the matter of labour and materials, and might still apportion any immediate deficit as now intended between the Treasury and the Local Authorities. The buildings would be erected rapidly and cheaply, and hence the immediate deficit would probably be small. Further the cost of permanent building would be deferred until labour conditions were normal and building presumably much cheaper. The risk of erecting permanent buildings in localities where subsequent experience might prove such buildings to be unsuitable, owing to faulty forecasts as to the growth of industry or other causes, would be avoided. The tenancies granted would, of course, not exceed the projected life of the buildings and in the meantime arrangements might be made for offering the freehold to the tenant for purchase on condition that he erected a permanent structure in which he might be assisted by generous mortgage facilities. Difficulties in this scheme of course exist; timber is scarce and other materials are lacking, but with State facilities and the utilisation of professional and trade assistance it appears to us that this scheme offers a better opportunity for early fruition than that now in prospect, though we must make it clear that it is not suggested as necessarily applicable to the whole of the building scheme contemplated.

NOTES.

The Architectural Association. We give elsewhere an appeal by the President of the Architectural Association, Mr. H. M. Fletcher, to which we should like to direct special attention. The Association was founded in 1847 and those readers of the *Builder* who know the admirable work of education it has carried on—and who does not?—and the inspiration of those magic letters "A. A.," will agree that the services it has rendered to architecture establish a claim on the generosity of the building public in its present difficulties. Mr. Fletcher's admirably-worded appeal will not, we believe, be in vain, and we specially commend it to the sympathetic consideration of our readers. We may add that it is proposed to hold in December an Exhibition and Sale of Sketches, Pictures, and Objets d'Art at the new premises.

Architects and Building Permits. We are glad to know that the interests of architects in the plan to allocate material after the war, to which we specially directed attention in a recent article, are to be safeguarded by the inclusion in the Central Building Industry Committee which is to be set up at once of two representatives of the Royal Institute of British Architects and one of the Society of Architects; while the Institution of Civil Engineers and the Surveyors' Institution will each nominate two members. It is satisfactory to know that while there will be a certain measure of control and regulation of building for some time to come, it is expected that the position will quickly improve.

The Daylight Saving Pioneer. It is stated in the Press that it is proposed to erect a public memorial in the form of a clock tower to the late Mr. William Willett, the daylight saving pioneer, though it is not mentioned where the memorial will be. We have already urged that builders and contractors should be at the head of a movement to provide an adequate and lasting memorial to a member of their calling who was directly responsible for the ultimate passing, though after his decease, of a measure of incalculable benefit to the whole nation during the war, and which will surely be continued for all time. It may be that builders think the pioneer work Mr. Willet did should receive more general public recognition; if so, we hope some movement to this end will soon be started.



Sculptures over principal doorway, Strasbourg Cathedral.

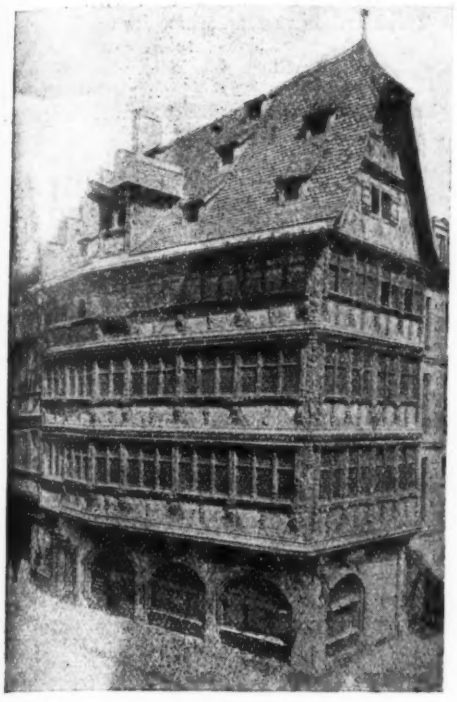
The Luxury Tax. Mr. C. Reginald Grundy, editor of the *Connoisseur*, has published an admirably written pamphlet, entitled "Tax So-called Luxuries and Lose Revenue." The points against the proposed tax are well put and the general argument sound. The opening sentences are no unfair comment on what is proposed. He says: "The strongest argument for the Luxury Tax is its name. It suggests an impost to be levied on waste and extravagance, checking the expenditure of the prodigal rich, altogether passing over the poor and the provident, and generally aiding in the moral betterment of the community. Had the measure been entitled 'An Act to promote the production of shoddy and check the profitable and economic uses of materials and labour,' it would have received little or no support. Yet the latter title is far more appropriate to its probable outcome than the former."

Housing and Women Critics. Lady Askwith contributed some remarks on housing to the *Daily Graphic* of Friday last week, which we were reminded of in listening to the excellent paper which Mr. Dunn read at the meeting of the R.I.B.A. on Monday. Lady Askwith makes some admirable suggestions but at the beginning of her article she says:—"Unless the women of the country are consulted, whatever housing scheme may be adopted will be a failure. Men may be better architects than women, but they do not appreciate the immense importance of the little matters which mean so much to the housekeeper. As the home is so essentially the woman's province, it is only natural that she should be an expert judge of the "points" of a house, just as a man may be an expert judge of the "points" of a horse. The essential demand, therefore, before any scheme for the solution of the housing problem can be safely adopted, is that the advice of the women should be sought. So far, I think I am right in saying, they have been ignored. . . . It is very earnestly to be hoped that too much attention will not be devoted to the question of structural design at the expense of internal arrangement. Also, even more important than the plan of the buildings—provided, of course, that sensible, hygienic methods are adopted, and that beauty and utility are combined—is the question of organisation. I am quite certain that every house should be built to save labour."

The Facts at Chepstow. In juxtaposition to this, we will give Mr. Dunn's remarks:—"The architect who builds cottages and larger houses has never failed to get plenty of criticism and advice, not, indeed, from the ladies who sit on committees, but from the practical housewives, who actually live in and run those houses, who, though they do not claim to be amongst the intellectual and advanced women, still give the soundest and most abundant criticism of every detail, though expressing the most divergent views. There is not an architect of experience in this room who has not heard enough of the opinions of the practical women to make an expert of him. It is popularly supposed that an architect either never heard of such a thing as a cupboard, or, from some natural infirmity common to his class, has not sufficient skill to design one. It is difficult to remove that impression, but it may be said that in this particular housing scheme (Chepstow) the proposal to put cupboards was vetoed by that stern autocrat the gentleman who gave permits for timber. He refused to let us have timber for the purpose, and it seems fitting to record it here lest the absence of them should be used to prove the truth of the popular idea." How often has the architect been blamed for results which he has not been able to control—due to costs, clients' wishes and in this instance to shortage of timber!

The Scene of the Peace Conference. The choice of Versailles as the scene of the approaching Peace Conference was no doubt dictated principally by political and historical considerations and by its practical convenience of position. All the same, it is quite probable that the advantage of a worthy architectural setting to one of the greatest scenes in the whole drama of human existence was a contributing factor in the choice. It is difficult to think of many places in Europe that would vie with Versailles in this respect. The buildings of the Palace itself may not be entirely convenient for the routine work of a Conference which may last many months, but for the more important and ceremonial gatherings it would be difficult to find a more suitable environment.

The Palais de Justice, Brussels. Should an International Court of Justice for the trial of Germans guilty of illegal and inhuman conduct during the war be formed, no finer building for the purpose could be found than the Palais de Justice at Brussels. Apart from its high technical merits, this



Old House, Strasbourg.

building is remarkable for its size and magnificence of conception, as compared with the size and population of Belgium. If architecture is to be taken as an index of national character, no country has so high a regard for justice, for no country has erected so fine a monument to this sublime ideal. Possibly the builders of the Palais de Justice were prophetic; possibly they builded better than they knew.

War Shrine in Hyde Park.

MUCH interest will be felt in the war shrine which is suggested for Hyde Park by Mr. S. J. Waring, from the design of Sir Edwin Lutyens—as few architects would know how to spend fifty thousand pounds to better result. Whether the symbolism of the design is to be apprehended by the general public or not, we may be sure that the author will express it in an individual and characteristic way. One wonders whether permission is given for such a site, and, if so, where.

The Imperial War Memorial.

As to *the* Imperial War Memorial, there is a large and influential concensus of opinion that it should take the form of some symbolic feature which should be placed in the very heart of London. How could this be better done than in the centre of an Imperial Way which leads from Trafalgar-square over a noble bridge to the great new station of the South-Eastern Railway, where one takes train for the Channel Tunnel *en route* for the whole continents of Europe and Asia? If the British public could ever rise to the height of a great imagination, surely here is a subject that should appeal to them, and subscriptions from the whole British Empire would flow in a mighty stream toward the creation of a worthy centre to the greatest city in the world. There will be a plenitude of War Memorials. The Anzacs must have one in Melbourne; the valiant Canadians must have one in Toronto, Quebec or Montreal; our great Indian Empire, which has stood the severe test of war so nobly, must have one in Delhi or Calcutta; whilst South Africa might almost establish a double claim to one in Cape Town, for it fought at home as well as in Europe. But beyond all this, there must rise one great and dignified memorial for the Empire in London itself. Such a memorial should be designed by a citizen of the British Empire, and the greatest effort should be taken to obtain the best, irrespective of age, position or association. Here, at least, Right should overshadow Might—the Right of great artistic power over the Might of social, commercial or political influence.

Symbolism.

ARTISTS are often made to realize what they are up against when they meet with statements such as that by Sir Robert Perks the other day, who said (we are told) that he had never been able to understand what the crowning figure of the new Wesleyan Hall buildings meant, though it had cost two or three thousand pounds. What is symbolism? It appears that Sir Robert has never yet found this out. He has been instrumental in bringing into existence one of the finest buildings in London, but though the architects have done their part so finely they have left their client cold indeed! We should have supposed that no man of culture would have felt called upon to express his utter ignorance as to the value of symbolism or even as to its meaning.

Prevention of Accidents in Workshops, Factories, &c.

As a sequel to the Conference held in London in June last, at which it was decided to conduct throughout the country a campaign for the prevention of industrial accidents, an influential organisation has been formed comprising representatives of the Admiralty, Board of Trade, Home Office, Local Government Board, and the Ministry of Labour, of leaders of industry and labour. The title of the new body is the British Industrial "Safety First" Association. the policy of the Association is the formation in every industry of a "Safety First" Committee, comprising representatives of employers and employees, and of Committees in the leading firms to investigate the causes of accidents peculiar to the particular industry, and to discover and apply effective measures and safeguards to prevent the recurrence of similar accidents. As numerous unavoidable accidents are due to carelessness, and thoughtlessness on the part of the employees, a comprehensive educational campaign is proposed to be conducted from headquarters, and members of the Association will receive regular supplies of posters and literature designed to point out the known causes of avoidable injuries. A Home Office pamphlet recently issued, states:—"In 1914, 969 persons were killed and 147,045 persons were injured by accidents in the factories and workshops of this country. If to these figures were added the accidents in mines, quarries, building and other constructional work and railways, the total would be much more than doubled. These figures represent an enormous loss to the nation, to the industries, and to the workers themselves. It is of the first importance to the country, both during the war and also during the period of reconstruction after the war, that this great cause of waste and loss of efficiency in our industrial organisation should be as far as possible removed."

Repair of Old Cottages.

IT seems a great pity that some of the present enthusiasm for building new cottages cannot be diverted into repairing the thousands of beautiful old ones that give so much character and distinction to our country villages. No doubt there are many past repair, but the great majority are structurally sound and would be perfectly habitable if thoroughly overhauled—particularly from the sanitary point of view. Minor alterations or even additions could be made without necessarily destroying their charm. Apart from the general economy of such action, the beauty of our old villages is also a matter of national concern. We all realise the need of a certain number of new cottages, but the preservation of old ones of architectural merit is a matter of equal importance. If State control is to be exercised and public money spent, probably most people would rather see it spent in this direction than in littering the country-side with concrete abominations.

Font, Strasbourg Cathedral.

[The three illustrations from Strasbourg which we give will be of interest at the present time.]

GENERAL NEWS.

"Drawing and Design."

We have received the November-December issue of *Drawing and Design*, which contains interesting articles on "Colour in London," "The Pageantry of the Wayside," "Shaping the Model." This magazine will in future be published monthly, instead of bi-monthly, at the reduced price of 6d.

Scottish Building Schemes.

Mr. Munro (Secretary for Scotland) in reply to Mr. Duncan Millar (in the House of Commons), said that while no building schemes in their final stage had yet been submitted for approval to the Local Government Board for Scotland, several Local Authorities had schemes now in course of preparation for the provision of about 9,000 houses.

Railway Standardisation.

The report has been issued of the Committee appointed to inquire as to the desirability of standardisation of railway equipment. "We think," they say, "it is desirable in the national interest to carry out standardisation of railway plant as far as it is practicable to do so, and as immediate steps towards this end we recommend the standardisation of wheels, axles, wheel centres, tyres, running gear, draw gear, buffing gear, bogies, brakes and under frames be dealt with immediately."

Statue to President Wilson.

At a meeting of the committee of the newly-formed Anglo-American Society, it was resolved that the first act of the society should be to arrange for the erection of statues of Washington and of Lincoln, already most generously offered to this country from America, and further to invite President Wilson to honour the society by allowing them to arrange to have a statue of himself by a distinguished sculptor set up in London simultaneously, as a memorial for all time of his distinguished services to humanity at the time of the great war.

President of the Local Government Board.

The King has been pleased to approve the appointment of the Right Hon. Sir Auckland Geddes, K.C.B., M.P., to be President of the Local Government Board in the place of the Right Hon. W. Hayes Fisher, M.P., who has resigned. Sir Auckland Geddes will undertake the combined duties of Minister of National Service and President of the Local Government Board. The King has been pleased to approve the appointment of the Right Hon. W. Hayes Fisher, M.P., upon whom His Majesty has conferred a Peerage of the United Kingdom, to be Chancellor of the Duchy of Lancaster.

Material for Industry.

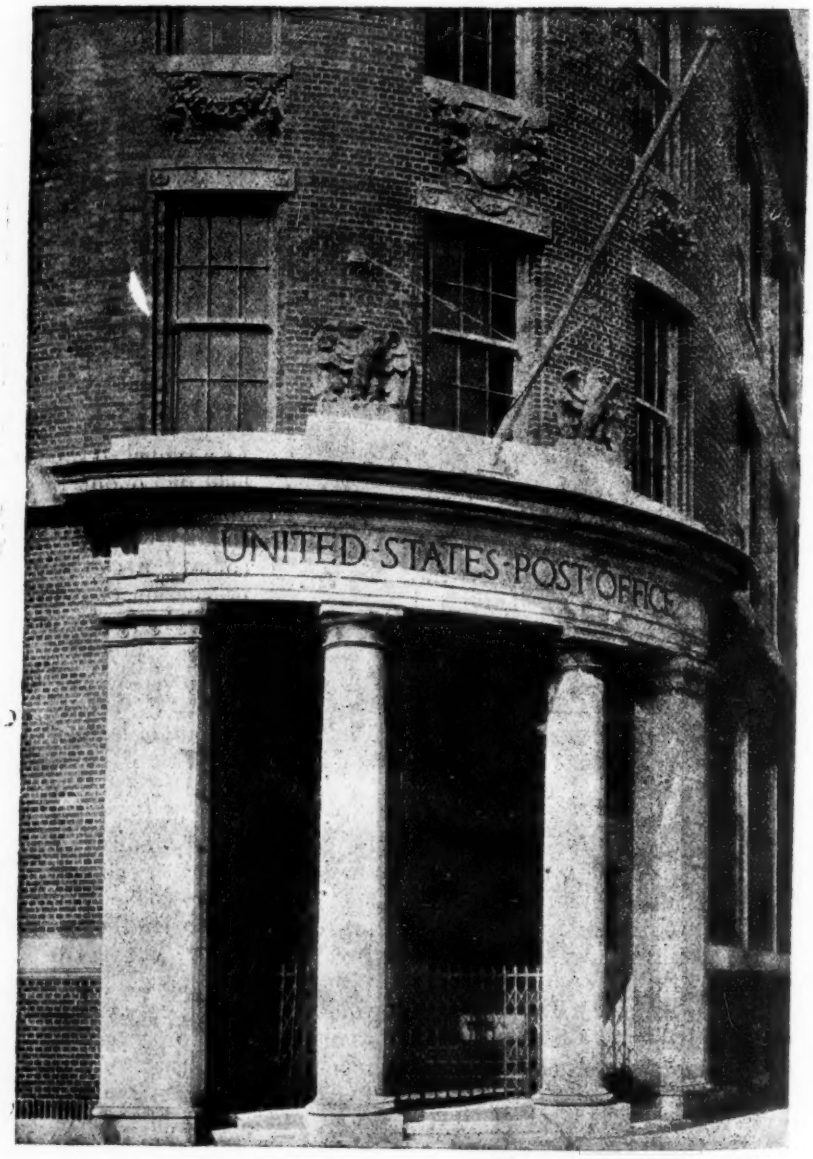
The War Cabinet recently set up a Cabinet Committee to deal with post-war priority questions. This Committee consists of General Smuts, the President of the Board of Trade, the Minister of Labour, the Minister of Shipping, the Minister of Munitions, and the Minister of Reconstruction; and the Secretary is Colonel Byrne, C.M.G., 11, Pall-mall, London, S.W. A Standing Council on Post-War Priority has been appointed to assist the Cabinet Committee, and is now at work. The Council has already had before it a survey of the existing stocks of the more important raw materials, and is giving urgent consideration to the question of releasing such materials from any form of control at the earliest possible moment. It is the intention of the Council to consult the trade bodies concerned with regard to any matters affecting the industries they represent, and, by taking them into their confidence, to make the utmost possible use of their organizations in any allocation of materials which may be found to be necessary. The Council includes Mr. J. T. Brownlie, Amalgamated Society of Engineers; Mr. J. Carmichael, contractor, Wandsworth, London, S.W.; and Mr. J. Warmald (Mather & Platt), engineers, Manchester, Chairman of the Industries Committee. Communications should be addressed for the time being to the Joint Secretaries, Standing Council on Post-War Priority, 2, Queen Anne's Gate-buildings, Westminster, S.W. 1

Architectural Association of Ireland.

The opening meeting of the Architectural Association of Ireland for the session 1918–19 was held at the Association's rooms, South Frederick-lane, Dublin, when the President, (Mr. M. J. Burke, F.S.I.) delivered his inaugural address, and routine matters connected with the programme of studies and competitions for the session were considered. Having paid a tribute to the creditable part played by the younger members in the struggle now at an end, and expressing the hope that the help which the Association would be able to afford these men in pulling up the dropped stitches on their return would be worthy of their services, the President referred to changes in conditions which were taking place in the world of architecture and building, and reviewed in detail the reasons why it behoved the Association to hasten itself in connection with its educational work, so that the younger generation would be fully equipped to meet the demands upon them in the days to come. An interesting discussion followed on the points touched upon by Mr. Burke.

Manufacturers and Restrictions.

The Minister of Munitions gives notice that orders and instructions are in course of preparation, and will be published shortly, under which the restrictions which have hitherto existed prohibiting manufacturers from undertaking certain classes of orders and from using certain materials otherwise than for specified purposes will be relaxed so far as possible. In the meantime, manufacturers are at liberty, subject to the existing Priority of Work Order, forthwith to use in manufacture, whether for stock or otherwise, any iron, steel, or non-ferrous metals which they have already acquired by purchase and have in stock, and (subject to any existing restriction as to price) to accept any orders for manufacture out of such iron, steel, or non-ferrous metals. In the case of stocks of materials which are held by contractors, but are the property of the Government, application should be made immediately to the appropriate department of the Ministry of Munitions, who will be prepared to negotiate the terms on which they can be released. In this connection, attention is directed to the fact that release of the materials in question will only be granted to a sufficient extent to satisfy reasonable immediate manufacturing requirements. In the event of excessive stocks of materials being collected, it may be necessary to exercise powers of requisitioning such stocks in order to divert them into the most useful channels, having regard to the national interests.



From the *American Architect*.

A Post-office Entrance, Boston, Mass.

MR. JAMES E. MCLAUGHLIN, ARCHITECT.

[There is a simple, dignified treatment of this corner building which is quite pleasing.]

CORRESPONDENCE.

Fuel Economy and Coal Conservation.

SIR,—In view of the interest that has been, by pressure of circumstances, aroused in the questions of relative fuel economies and the conservation of our coal supplies; and in view of the tendency in some quarters to push the use of electricity for cooking in National Kitchens, may I ask space for the following facts concerning the comparative costs (a) to the consumer in money, and (b) to the nation in coal, entailed by the use respectively of gas and electricity for cooking. Some months ago in an advertisement, a maker of electric cooking apparatus went from the general claims made for electricity by some of its enthusiastic but not very well informed advocates, that by its use in cooking large savings in meat could be secured—though how this could be done if the meat were to be properly cooked was never explained—to very specific claims of savings in meat, money and coal as compared with cooking by gas. He was challenged by this Association to a test before an independent umpire from the staff of the National Training School of Cookery. After much delay the test was brought off recently on a gas cooker selected by the electrical appliance maker and an electric cooker of his own construction. The following were the results of the test, compared with the claims originally made:—

The Electrician claimed	*The tests proved*
That in cooking 15 million pounds of meat, if electricity were used instead of gas there would be:—	That cooking 15 million pounds of meat by electricity instead of gas would result in:—
(a) A saving of 3,150 tons of coal;	(a) A loss of 3,500 tons of coal;
(b) A saving of £2,500;	(b) A loss of £10,000 (taking the same prices for comparison as the claimant);
(c) A saving of 1,500,000 lb. of meat.	(c) No saving in meat if it were properly cooked in both cases.

The umpire's report revealed other disadvantages attending cooking by electricity, but unlike the above differences, which are fundamental, these may be remedied by improvements in construction or method.

These results confirm alike those of many similar tests that have been made and calculations that can be made from the known facts as to the relative calorific value obtainable from a Board of Trade unit of electricity and a cubic foot of gas; the relative efficiencies of the two in practical use; and the relative heat values for delivery to the consumer obtainable from a ton of coal converted into gas, coke and other valuable bye-products at a gasworks, and a ton of coal burnt to complete destruction in an electric generating station.

The last point is one of vital interest to the nation, yet the low thermal efficiency of even the most modern electric generating station, which does not deliver to the consumer more than about 10 per cent. of the heat contained in the coal there destroyed, is realised by very few.

The tests of which the results are above set out proved that, if electricity is used for cooking it entails the destruction of at least 4 tons of coal (and the loss of all bye-products) to cook the same amount of food as can be cooked by gas with the net destruction of only one ton of coal (*i.e.* after allowance for the coke residuum available for sale) and the conservation of all the valuable other bye-products. That fact of itself is sufficient to condemn the use of electricity as a heating agent from the national point of view, as its cost condemns if from the consumer's point of view. There is ample room for electricity in the national economy, but not as a fuel.

W. M. MASON,
Secretary, British Commercial Gas Association.

Workmen's Houses.

SIR,—We do not find ourselves in much agreement with the footnote you have added to a letter of ours, which you published in your issue for November 8. For since then have not the Women's Housing Committee, in an interim report, declared unanimously for a separate bathroom, also a lavatory? That settles it. That is what we have been clamouring for. Yet you appear to think that the working man ought to be satisfied that he has the bath and scullery sink to wash in. Perhaps the working man may object to wash where the dinner dishes, pots and pans are washed; or he may be squeamish about having his dinner dishes washed where the whole household wash dirty faces and hands. Sanitation says certainly not. The working man may be as dainty and retiring in his ablutions as you are. You had better settle it with the working man.

Still, we trust you will soon find yourself in harmony with the Women's Housing Committee, and thus help along another necessary housing reform. Our mission is accomplished.

MORRISON, INGRAM & CO., LTD.

[*** We are *not* satisfied when the working man has only the bath and scullery sink to wash in, but not only does he at times prefer it but in some districts such provision may be better than a separate bathroom. We are all in favour of the separate bathroom, but the question is how, when and where?—ED.]

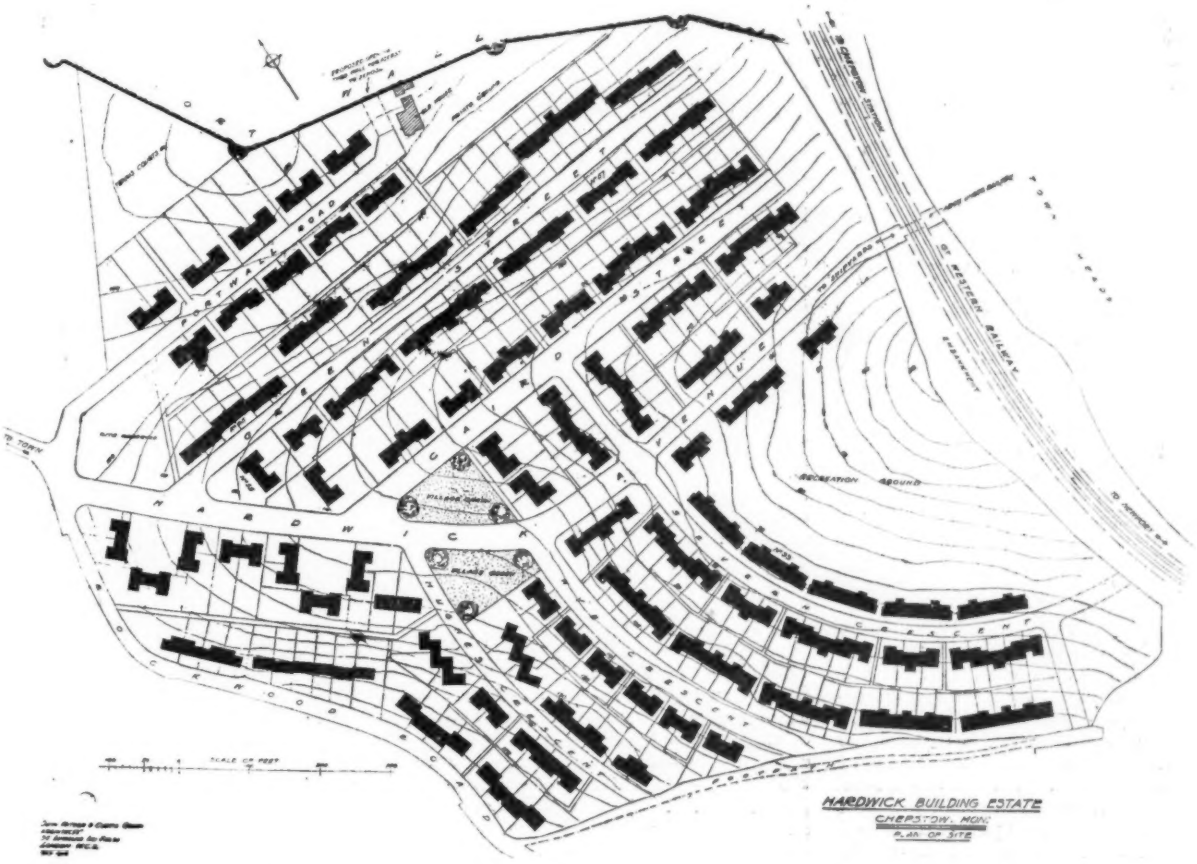
THE ESTATE MARKET.

BEAMHURST HALL and over 200 acres will come under the hammer at Uttoxeter on November 27. Business premises at Harrogate, rented at over £600 a year, are to be sold by Messrs. Hepper & Sons on November 25. Parts of Holme Hall estate will be offered, at York, on November 28, by Messrs. R. M. English & Son. Messrs. Richardson & Trotter are selling farms near York on the same day. Thursford Hall, and about 1,550 acres, will be submitted, at Fakenham, on November 28, by Messrs. Irelands. Gloucestershire and Worcestershire freeholds will come under the hammer of Messrs E. G. Righton & Son on November 25. Messrs. Pope & Smith, at Ledbury, on November 26, are selling The Castle, Munsley, and some hundreds o acres.

MEETINGS.

FRIDAY, *November* 22.

Anglo-Hellenic League.—Mr. T. H. Mawson on "The Rebuilding of Salonica." In the Great Hall, King's College, Strand. 5 p.m.



A Chepstow Housing Scheme.—MESSRS. DUNN, WATSON, AND CURTIS GREEN, ARCHITECTS. (*See next page*).

AN ordinary meeting of the R.I.B.A. was held on Monday at the offices of the Institute, Conduit-street, Regent-street, Mr. H. T. Hare, the President, in the chair.

In opening the proceedings the President said that he thought he ought to refer to the great events that had happened since their last meeting. The war was over, and they had accomplished in the most complete and thorough manner all they set out to do. The menace of Germany which had threatened them for two generations no longer existed, and Great Britain now held a higher position in the estimation of the world than it had ever held before. They might, he thought, feel justly proud and satisfied with the part the architectural profession and that Institute in particular had taken in the war. Their record of those who had actually taken part in the war compared favourably with that of any other profession, while those who had indirectly contributed by service in this country comprised probably the majority of practising architects. They had suffered serious and special hardships, but those could now be forgotten in their success. There were probably few present who had not suffered the loss of relatives and friends, and many of their most promising and gifted young men had gone from them. They had laid down their lives for their country, and they would live for ever in their memory. Up to the present as many as 135 licentiates and students of the Institute had been killed in action—the list was not yet complete, and the number might be increased. The Council was arranging a memorial service in St. George's, Hanover-square, and the date would be announced as soon as the arrangements were complete.

On the suggestion of the President, the members stood in silence as a tribute of respect to the memory of those who had fallen.

Mr. William Dunn then read a paper on "A Chepstow Housing Scheme," which he had prepared in conjunction with Mr. W. Curtis Green.

"A CHEPSTOW HOUSING SCHEME.

"Chepstow is in the Wye Valley, a hilly district famous for the beauty of its scenery. The site of the houses is about 28 acres in extent, and lies just outside the Port Wall. It formed a little valley, bounded on the northern side by the Port Wall on the crest of the hill, and on the southern side by the wooded heights of Hardwick Hall. At the top end of the valley there are the houses outside the town wall; at the outlet of the valley lies the river, but severed from the site by the railway, which crosses the valley on a high embankment, and by the Town Meads, now the shipbuilding yard. Down the centre of this valley there was an old road extending halfway down, and beyond that a footpath leading to an archway under the railway. The level at the arch under the railway was 54.57 ft. above Ordnance datum, and at the top end of the land 142.9, so that the authors had a fall of about 88 ft. in a length of 1,300 ft., measured along the line of old road and footpath down the centre of the land. On the Port Wall side the highest point was 160.44 and on the Hardwick Hall side 164.8 feet above O.D., the ground falling very sharply towards the centre. The central road, called Hardwick-avenue, 36 ft. wide, having been tentatively fixed, the side streets were arranged at such distances apart as would give space for two houses and their gardens—about 155 to 190 ft. The general direction of the side streets follows the natural contours of the land. The widths of the streets are 24 ft. and 36 ft. with 14-ft. and 24-ft. carriageways respectively between the curbs. Three open spaces were proposed: one in the centre of the site, to be planted with trees round it, and to be provided with benches, as a village green; one at the top end, where the site is fairly level, intended for bowling greens or tennis courts; and one—the largest—at the lower end, for general recreation ground. Part of this is below the level of the railway, and is being filled up to that level. The scheme proposes about ten houses to the acre. The garden ground to each cottage varies in extent. For the supply of coals, the removal of waste and to give access to the back doors, by which the working man enters after the day's work, back lanes have been formed. In the central road—Hardwick-avenue—the old 9-inch pipe sewer remains. In other streets 6-inch sewers are used, except on one side where a 9-inch pipe sewer was laid for special reasons.

The Houses Generally.

"In a scheme such as this, designed for various classes of workmen, labourers, skilled tradesmen, foremen and clerical staff in a shipyard, there must be some variety in the extent and quality of the accommodation. The smallest house has a living room or kitchen of about 168 square feet area, three bedrooms, a scullery with bath, a fuel store, w.c. and larder. The largest so far designed has kitchen, parlour, dining room, four bedrooms, bath with hot and cold water, scullery and offices. It would be economical in many ways — in the architect's labour, for instance—to use a few types and repeat them all over, but results would probably be disappointing from the sameness of the designs. The British working man is by no means indifferent to the value of a house of some individuality and a pleasing appearance, though he often says that all *he* cares for is good accommodation. He is not enamoured of the streets of houses in which the only means of identifying his dwelling-place is by the number on the door. In our case, the discussion of pros and cons for type-plans was useless, as the hilly site made it impossible to do much in the way of standard plans. Each block of cottages had to be planned to suit very uneven sites, and there was also the aspect and prospect to consider. All around are splendid prospects of the neighbouring hills, and as each row of houses rises, terrace fashion one above the other, there was strong reason for considering this question of prospect. As to aspect, sun is so important to us in our island climate that we made great efforts to get sunny rooms. No architect would willingly put houses of the same plan on both sides of a street running east and west. . . .

"All the accommodation required is provided within the walls of the house; there are no outhouses.

Some Points in the Plans.

"The front doors open into a small porch; in the larger houses into a staircase hall. From this the doors of the principal rooms open out, and the stairs ascend. At the backs of the houses there is an open porch in which we place the doors to the scullery, the w.c., and the fuel store. This arrangement saved us from the appearance of three doors in the back elevation of a small house, and from a great difficulty in making a satisfactory back elevation. It shields the w.c. door; it forms a convenient place for boot-brushing under cover; and it enables the scullery door to be left open on washing day or any day, even in bad weather. In a few cases in the smaller houses the stair opens from the living room instead of out of the front porch. . . . Where conditions were favourable windows were put in two walls of rooms. A room with windows in two walls is always more cheerful, and is better lighted with smaller window area than by a window in one wall. Every house has a bath; in one or two cases the bath is in the scullery, but in nearly all the houses it is in a separate room. The hot water is taken from the copper close by by hand. The first cost, and cost of maintenance of the plumber's work in a hot-water service in workmen's houses, was considered too great, and in practice this method of supply seems to give satisfaction. Sometimes the copper is in the scullery, sometimes in the bathroom which opens off the scullery. Each arrangement has its own advocates. In the larger houses for foremen, who are more careful and more responsible tenants, the bathroom is upstairs, with a proper hot-water service to the bath, sink and lavatory basin. The coppers are independent without brick-setting. The kitchen ranges were some of the Yorkshire range type, and some of the open-and-close fire type. The thresholds are in all cases set two inches above the floor line to allow for doormat. The ground-floor ceilings are made eight feet in the clear as a minimum. The bedrooms upstairs are also eight feet at least in the greater part of the room. . . .

Materials and Construction.

"The external walls are built of two thicknesses of 4-in. thick solid plain concrete blocks with a 3-in. cavity, with the usual iron ties. The blocks were made in Winget block-making machines, of which we had two on the works. In the first cottages built, the blocks were each 32 in. long, 9 in. high, and 4 in. on bed, except the closers. At the corners, L-shaped blocks were used. It was found that the workmen objected to handling such heavy blocks, and in later houses the length was cut down to 16 in. The appearance of the shorter blocks is not so good, and the walls are not so strong to resist settlements, though so far we have had no settlements to contend with. These hollow walls were built direct on the foundations, without footing courses. The foundations were of cement concrete, 9 in. thick and 2 ft. wide. The lintels had steel reinforcement varying in amount with the span. . . .

"The concrete blocks were made on the site, of local stone chippings and sand, and we were confident, from experience with other such blocks in cottages in the West Country, that the appearance would be better than that of a wall of large pressed bricks. The usual cold grey textureless surface of concrete walling arises from the floating of the finer materials to the face of the wall. Here we used a dry mixture of concrete, so that we did not have that result. Then the face-mould—a cast-iron plate—had groovings in it, giving what is called in masonry a droved surface to the finished block, which has nothing of the dull appearance already mentioned. There was another advantage in this droved face; we had no surface crazing which occurs in the smooth face when that smooth face is due to the floating of the richer and finer materials to the surface. The many joints in the wall give it a power of expanding and contracting without developing *visible* cracks. In our climate the nights are always cool, and concrete does not get heated all through, so that there is comparatively little temperature effect; that little is taken up by invisible cracks in the joints.

"The partition walls were also made of the same blocks, without, of course, the droved face. The thickness was 4 in. for bearing partitions, and 2½ in. for the small partitions dividing sculleries, larders, fuel stores, &c. No plastering was done on the walls of these sculleries and domestic offices on the ground floor. The internal effect is like dressed stone. The saving in first cost of plastering is considerable, and there are no recurring bills for repairs to plastering which absorb so much of the rent.

"The roofs a recovered with sand-faced tiles varied in colour. It was found that the extra cost of using these tiles instead of the cold blue Welsh slate was but little, and when you consider the aesthetic effect of the red-tiled roofs and grey walls, as compared with the blue slate and grey walls, there can be no question that the small extra cost was well spent.

"The valleys are all swept valleys in tiles and

the ridges plane roll tiles such as you see in all the old cottages in the districts where tile roofs are used. The few small valley-gutters were laid in Ledkore, and the junctions with the vertical faces of chimneys, &c., were made in cement. The workmen who did the tiling were skilled men who took a pride in their work, and it is pleasant to record that, so far, there has not been a single case of leakage through either roofs or walls. The floors and roofs were designed to be of ordinary timber construction, and the first thirty-one houses were so built. In later cottages we could not get permits to use imported timber for floor joists or floor boards, and, after a good deal of consideration, decided to use floors of hollow brick, with flat steel tension bars, for the first floors. These floors were formed on centring in the usual way. The ground floors throughout are of cement concrete, covered in the domestic offices with cement and all the living-rooms, parlours and bedrooms with Wilfley flooring. Where the upper floors are of hollow brick, they also are finished with Wilfley floors. The chimney stacks are in red sand-faced brick. Picture mouldings are provided in all living-rooms and parlours.

"We may here mention that the doors, windows, stairs and chimneys, &c., were standardised, a limited number of types being used. The first fifteen houses cost about £450 each, exclusive of any proportion of roads, sewerage, garden formation or fences. The second fifteen cost about £530 each. We cannot determine the cost per house of the remainder, as the cost of wages, &c., has risen a good deal, and forms a very important element in the total. . . .

"Before closing, it may be well to explain why reinforced concrete, which has so large a place in the public mind, was not used here, especially as the architects of the scheme have had so much to do with reinforced concrete work elsewhere. The reason is that knowledge and experience of reinforced concrete teaches its true use and its limitations. It is not a desirable material for external walls; it is expensive, almost certain to result in minute but disfiguring cracks when used for walls, and has not a pleasing surface as it comes from the moulds. It is too expensive for interior partitions. For floors it is not only expensive, but it communicates sound from room to room readily. It requires generally beams to support the floors and thus brings loads at points, not always in convenient places; it affords no facilities for fixing gas pipes, &c. There have been suggestions made for its use in roofs. The flat roof—the most economical form for this material—is not suitable for cottage roofs in this country. It is cold, and its appearance is against it where tradition has so much to do with our ideas of the beautiful. Of course, we use trusses of reinforced concrete in factories where there are many repeats, of a standard pattern, but that condition does not obtain in cottage building on such a site as this. We have not yet solved the problem of making cottage rafters in it. Many capable minds are at work on the matter, and time may yet bring us enlightenment and good ideas.

Style of Architecture.

"The days are happily gone when we were asked, "In what style is this building?" Architecture is not a thing of mode; it is false to itself if it tricks out its works in the garments of another age. The Early English church, the Tudor cottage, the Jacobean house, as built in Victorian days, were essentially false, and foredoomed to failure. The controlling factor in the design of any building is the plan, and not even the wildest enthusiast would dream of reverting to the plan of the medieval house or cottage. If we have higher ideals of home life and correspondingly higher and more complex requirements in planning, these must have the most important effect on the exterior—on the *style* of the design. Our task is to give the needs and the ideals of our time embodiment in our buildings—the best expression in the language of our day. *Our* language is based on the language of William of Wykeham, of John Thorpe, and of our forebears; but it would be ridiculous affectation to use their speech or strut about in their clothes. So these cottages are simply cottages of this time. We are given the needs of a home for a labourer or artisan or a foreman, and we have so to contrive our design that he may be satisfied, and that the decencies and the graces of life are open to him. To the material requirements of health and bodily comfort and convenience we have to add such pleasures as can be got from the eye, through which we appeal to the mind and heart, variety in plan and appearance; proportion, mass, and grouping, and all those elements of design which are as undefinable as the pleasing elements in poetry or music. . . ."

Mr. Raymond Unwin, in proposing a vote of thanks, said the authors had given them a masterly demonstration of the absolute necessity of having an architect in charge of every housing scheme. He hoped that the example which had been set at Chepstow would be widely followed by those who would have to take a part in the great rehousing schemes all over the country which would form such an important part in reconstruction. Mr. Dunn had told them that he had not had a single leakage in walls or roofs. That was certainly a triumph in concrete construction, which a good many people who had tried it were not able to claim. It would be interesting if Mr. Dunn could tell them whether he used the majority of his blocks practically green from the machine, a few days old, or whether they were allowed time to mature. He would also like to know what mortar or cement he used. With regard to the hot water question he thought they were in a transition period. There was a great demand among the working women of the country for labour-saving appliances in house work, and he thought it probable that developments would take place along the lines of better systems for heating water and more economical systems for using fuel for cooking and heating purposes.

Professor Adshead seconded the motion, and said he had always regarded Mr. Dunn as one of their great exponents of possibilities of new methods of construction in regard to architecture. It was particularly interesting to him to note the method of construction adopted at Chepstow. He thought that in future they would get a concrete cottage that would not absorb quite so much materials and be what perhaps Mr. Dunn himself might describe as more scientific if erected in large numbers where the right material and workmanship were available.

Mr. A. J. Pitcher said that if architects were going to study cottage building as they had done he thought they might legitimately ask that they had a fair share of the cottages that were going to be put up or subsidised by the Government. At the present time the proposition seemed to be that architects would not be called in to build those cottages. An important question that would have to be faced was the cost. Mr. Dunn had told them how the second fifteen cottages had cost about £80 more each than the first fifteen, and it would be very interesting to know the cost of the remainder. He was afraid that they would not get the ordinary builder for some years to come to set about erecting three-bedroom cottages at the cost mentioned by Mr. Dunn, so that apparently the State would have to come in with a subsidy. He thought it was of the greatest importance that architects as a whole should endeavour to get control of these Government and municipal schemes and carry them out on the lines that Mr. Dunn had initiated at Chepstow.

Mr. Herbert Baker, in supporting the vote, asked Mr. Dunn whether he had practically worked out the question of a communal hot water supply for the cottages he had erected.

The President, in putting the vote to the meeting, said a considerable amount of discussion was going on at the present moment as to whether concrete walls or brick walls were cheaper or better, and one was always anxious to get information on that point. A very little economy was worth making, on account of the enormous amount of repetition which they got in those houses, and, as far as he had been able to get information on the subject at the present time, there was nothing cheaper than ordinary brickwork under ordinary conditions. There were some manufacturers of concrete blocks who said that they were very much cheaper, but, as far as he had been able to ascertain, this was not the case, given a fairly easy supply of suitable bricks. With regard to the size of the blocks, where they were using concrete blocks, the larger they could cast them within the limits of easy handling, the more economical the use of the blocks would be. There was one point which occurred to almost anyone, and that was that if they had large blocks, the appearance of the cottages would suffer, providing the joints showed. He should have thought it would have been necessary to have coloured the blocks with something in the nature of cement or lime-whiting, in order to conceal the joints. He had had a good deal to do lately with the question of the provision of baths in cottages, and the conclusion that apparently had been come to was that a separate bathroom was a practical necessity, even in the smallest cottage. The ordinary arrangement which had been adopted hitherto, of putting the bath in the scullery, seemed to be objected to on the ground that there was no privacy. It was understood that in most of the cottages which were going to be built almost at once, a separate bathroom would be more or less insisted on. On the question of the employment of architects in these housing schemes which would shortly be put in hand, the Institute had taken every possible action, in order to insist upon that method of procedure. In all the negotiations which they had had with the Local Government Board in connection with the competitions recently held, they had put forward that consideration in the strongest possible way, and they were now issuing a circular to local authorities, in the same sense, stating that it would be to their interests to employ an independent architect in every case, and he thought that course was being taken more largely than it had been hitherto. It seemed to be recognised that in this very simple problem of housing, the greatest skill and the greatest experience was really necessary, because they were simple. It was realised that because they were simple they were, in the same proportion, so much more difficult, and if they were going to get anything better than the rows of hovels which they had been used to seeing, it must call for the greatest skill, experience and judgment of the architect. For that reason they hoped and expected that architects would be employed in the majority of cases where these schemes were going to be put forward. He might say that the Local Government Board had given them the assurance that, although they were not in a position to insist upon that being done, still that was their intention, and that was the course they hoped would be followed by local authorities.

The vote having been carried,

Mr. Dunn, in a brief reply, said that the concrete blocks were usually used not less than a week old, but generally they were older. They were set with cement mortar, and the joints were made to show. If they were to lime-white the blocks, as suggested by the President, they would lose their charm of colour, and it would mean additional expense.

Mr. Baker asked about communal hot water supply. He (Mr. Dunn) had not as yet found any method of doing that on a practical scale, especially on such a site as the one they had to deal with at Chepstow. The loss of heat on passing from the central station would be great, and the cost would also be very great, and on a hilly site especially there would be very great difficulties, on account of the enormous pressure that would be needed.

The President announced that the next meeting would be held on December 2, for the election of members and to discuss a proposal to be brought forward on behalf of the Council to promote a Bill in Parliament to amend the law relating to the acquisition of light. He might also tell them that Mr. Raymond Unwin would give a paper on December 16, entitled "Housing—the Architect's Contribution."

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ILLUSTRATIONS.

Suggestions for Housing.

THESE illustrations are taken from the report of the Committee appointed by the President of the Local Government Board and the Secretary for Scotland to consider questions of building construction in connection with the provision of dwellings for the working classes in England and Wales and Scotland and methods of securing economy and despatch in the provision of such dwellings. We deal with the report on p. **341**. In reference to the illustrations we give, of No. 23 the report says :—

"On sloping sites, where there is much fall in the length of a group of houses, expensive and ugly steps in the roof may be avoided by using a type of low house at the high end of the groups and at the low end adopting another exceptional type of design, having extra bedrooms on the second floor partly in the roof. In this way a few cottages having four or five bedrooms could be provided for larger families at very little extra cost, and at the same time the designing of the groups could be simplified in roofing and improved in appearance."

In reference to economical types, the Committee report as follows :—

"We suggest the following types of houses as being desirable for erection, commencing with the smallest, which should be regarded as containing the minimum accommodation to be provided.

"*Type I*, containing a living-room with cooking-range ; scullery with copper, sink and gas cooker, or, in the absence of gas, in rural areas, *e.g.*, a small grate or stove suitable for drying clothes ; the bath situated downstairs, which may be in the scullery, if no other arrangement is practicable and if it can be closed without cutting off access to the back of the house (see Illustration 18). The bath, however, is better in a small apartment off the scullery, planned to serve the double purpose of bathroom and wash-house ; in the latter case being made a little larger to include the copper as well as the bath ; an arrangement which is both economical and convenient for the smaller type of house, in that the water for the bath can be heated in the copper, while the bath itself may be made use of in washing operations. In this type of house the w.c. would be on the ground floor, accessible under cover possibly from back lobby or porch. To this accommodation must be added in all cases, in this and other types, adequate and well-ventilated larder, coal store and three bedrooms.

"*Type IA*, containing the same accommodation as *Type I*, but with the addition of a parlour (see Illustration No. 38).

"*Type II*, containing a living-room with some modified form of grate intermediate between a cooking-range and sitting-room grate, so that a limited amount of cooking can be done on occasion ; scullery with copper, sink and gas cooker and also a grate for drying purposes, or in the absence of gas, a small cooking-stove. A separate bath-room would be provided, usually on the ground floor, hot water being supplied by means of a boiler at the back of either the living-room or scullery fire. The w.c. would be on the ground floor as before (see Illustration No. 19).

"*Type III*, containing a living-room (provided with a sitting-room grate) from which cooking operations are definitely banished ; scullery (with copper, sink, cooking-range and gas cooker, if gas is available) sufficiently large to enable all the work connected with the cooking and preparation of meals to be carried on there ; bath upstairs, hot water supplied from a boiler at the back of the scullery fire, w.c. inside, either upstairs or entered from a downstairs lobby (see Illustration No. 20)."

A Chepstow Housing Scheme.

This illustration is given in connection with the paper by Messrs. William Dunn and W. Curtis Green, which was read by Mr. Dunn at the meeting of the Royal Institute of British Architects on Monday and a report of which appears on p. **334**

The roof of the building is of tile, with swept valleys. The walls are of concrete blocks ; the chimneys all in red brick, and the boundary walls in local rough stone.

Pencil Sketches in the War Zone.

These illustrations are from pencil drawings made by Mr. Thomas Battersbury, architect.

A Village Hall and Church.

The illustrations given are a pre-war scheme for a village hall adaptable also for public worship. The hall, suitable for lectures, concerts, debates, theatricals, gymnasium, newsroom, &c., was intended as a centre of village life. By means of folding or removable screens a sanctuary and baptistry could be provided.

During the past four years, huts, tents, dug-outs, fishing-smacks and many other places have been hallowed by Divine worship, so that it need not be supposed that difficulties of consecration are insuperable.

In any attempt to carry out such a scheme materials most readily obtainable should be selected. Methods of heating, artificial lighting, &c., again will require individual consideration, according to locality. The site should be as open as possible, affording space for a bowling-green or other out-door recreations.

The lines indicated may evoke originality in accommodation and construction, to meet a want likely to be increasingly felt when demobilization is in progress.

The plan in the left hand corner of the plate is an alternative scheme, showing retiring rooms or vestries on a somewhat larger scale.

FRANCIS HOOPER.

Surgeries at a Munition Works.

The plan shows two surgeries, 20 ft. × 15 ft., one for women and one for men, together with a rest room for women and waiting room for men. The building has been constructed in local brick work and slated roof covered with felt and boarding.

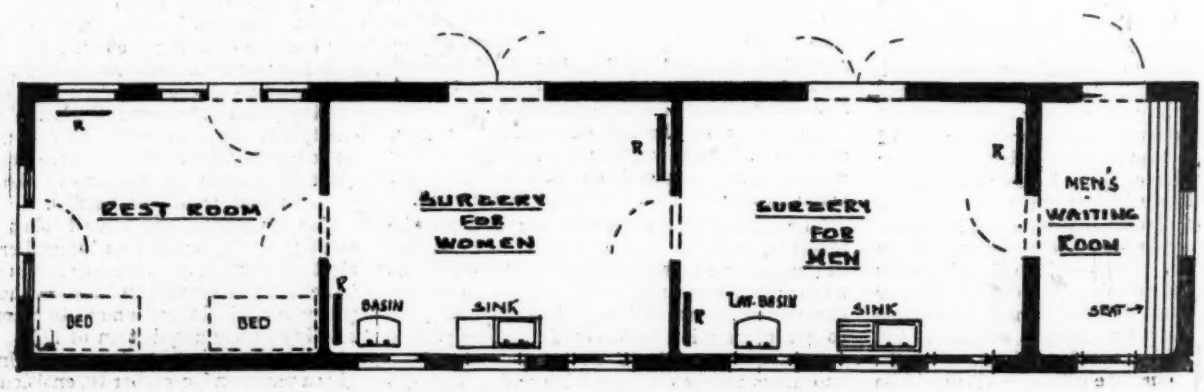
The main entrance doors are placed on the works road side of the surgeries, so that any special cases can be wheeled on the ambulance straight into the surgery, but in the minor cases the women enter through their rest room and the men wait in turn for treatment in the waiting-room adjoining. The surgeries are lit with large iron casement windows with swing casements over for ventilation, and plate-glass windows are fitted on the north side.

The doors inside the surgeries are "Drawing Board Doors," and these have no mouldings and are fitted with nickel fittings and handles throughout. The floors of the surgeries are concrete and terrazzo marble flooring, and the walls and ceilings plastered in Parian cement with rounded corners, painted four coats and finished in Parapan washable enamel, and all wood work painted and finished in white enamel. The walls of the rest rooms are distempered French grey with a dado of ivory white, and the floor is covered with linoleum, fitted up with curtains of Rose du Barry and furnished with two white enamel beds complete and deck chairs.

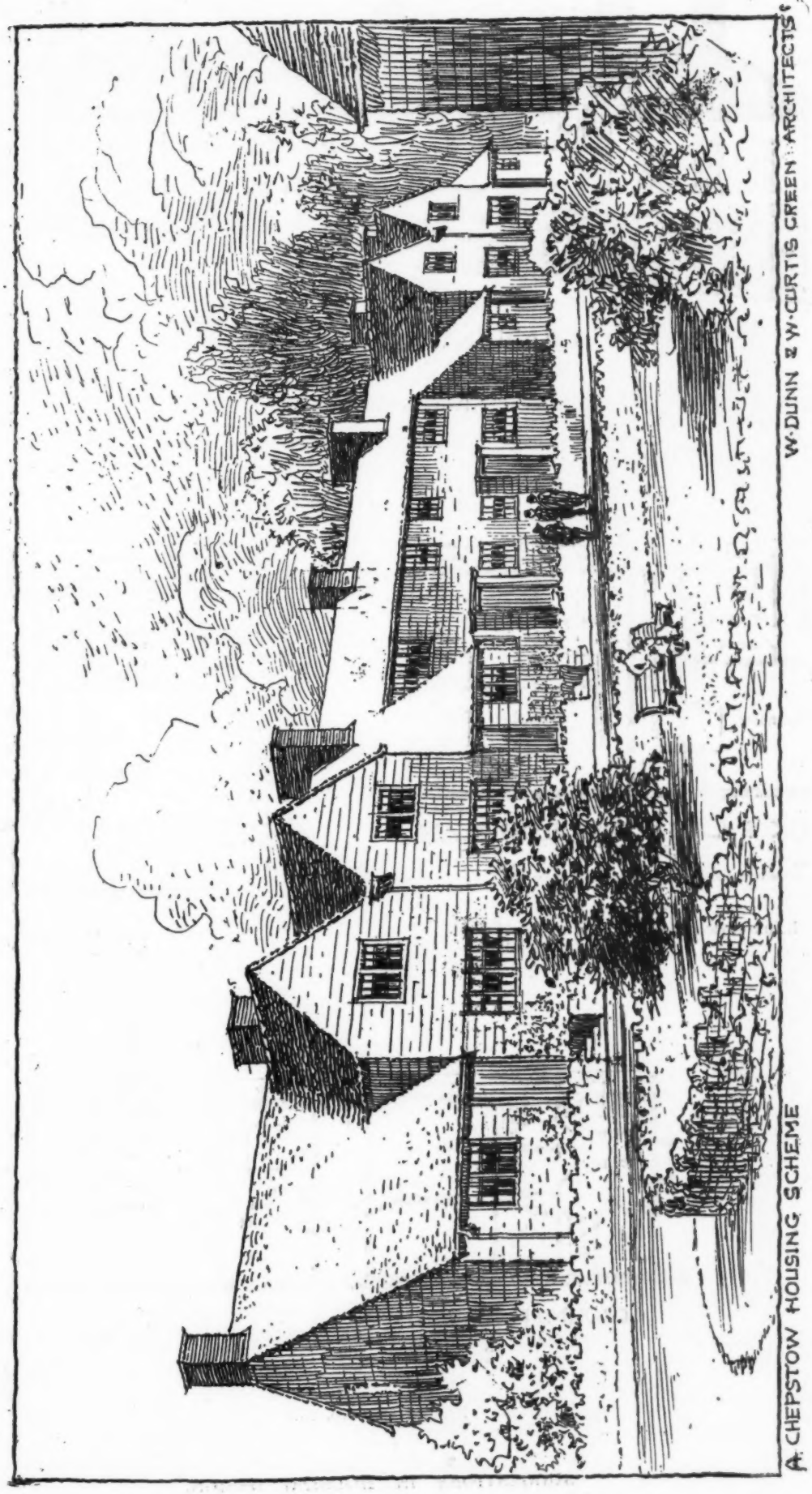
The surgeries are fitted up with the latest improvements in sinks, lavatory basins, and the plumbing and other pipe work is carried out in such a way that no pipes are exposed to view at all. A constant supply of hot, cold and boiling water is provided from a gas-heated boiler in the boiler-house near to.

The whole of the building is heated with hot water radiators and lit with electric light, the fittings and switches being nickel plated. The equipment includes large white enamel cabinets where the bandages are stored, tables and chairs of white enamel, dressing wagons, screens and couches of the latest improved designs and the whole of the outside windows are protected with sun blinds. The ambulance is kept close to the surgeries, with a store adjoining in a separate building.

The building has been designed and carried out under the personal supervision of the architect, Mr. George P. Allen.

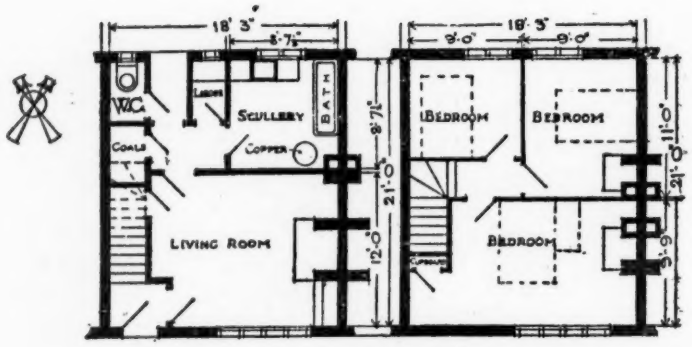


Plan of Surgeries and Rest Rooms at a Munition Works.


W·DUNN & W·CURTIS GREEN : ARCHITECTS
A CHEPSTOW HOUSING SCHEME

GRADIENT OF ROAD 1 IN 10.

ILLUSTRATION NO. 23.

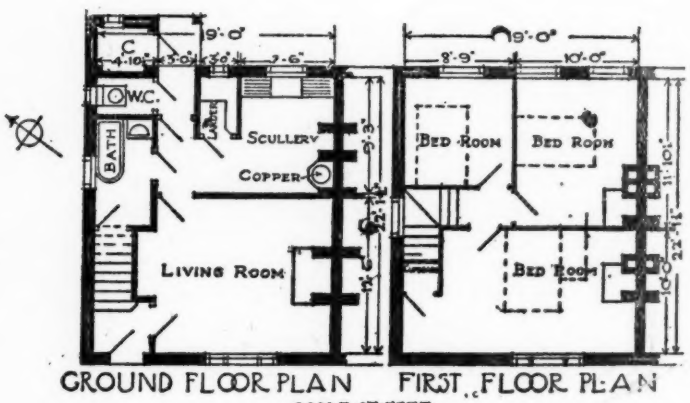


GROUND FLOOR PLAN FIRST FLOOR PLAN

SCALE OF FEET

10 5 0 10 20

ILLUSTRATION NO. 18.

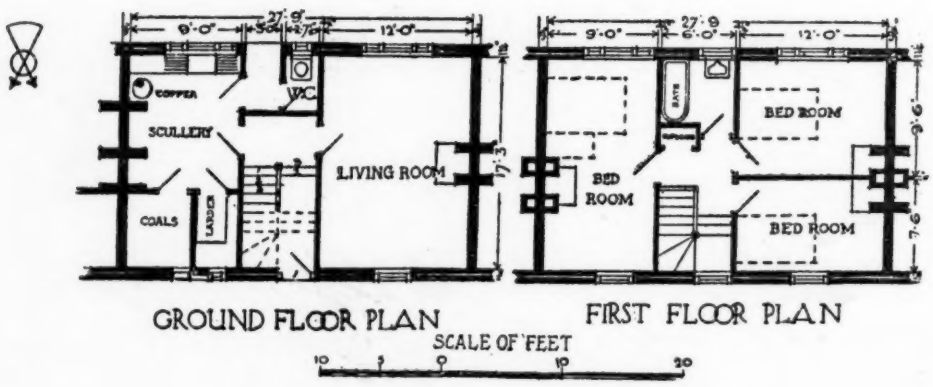


GROUND FLOOR PLAN FIRST FLOOR PLAN

SCALE OF FEET

10 5 0 10 20

ILLUSTRATION NO. 19.



GROUND FLOOR PLAN FIRST FLOOR PLAN

SCALE OF FEET

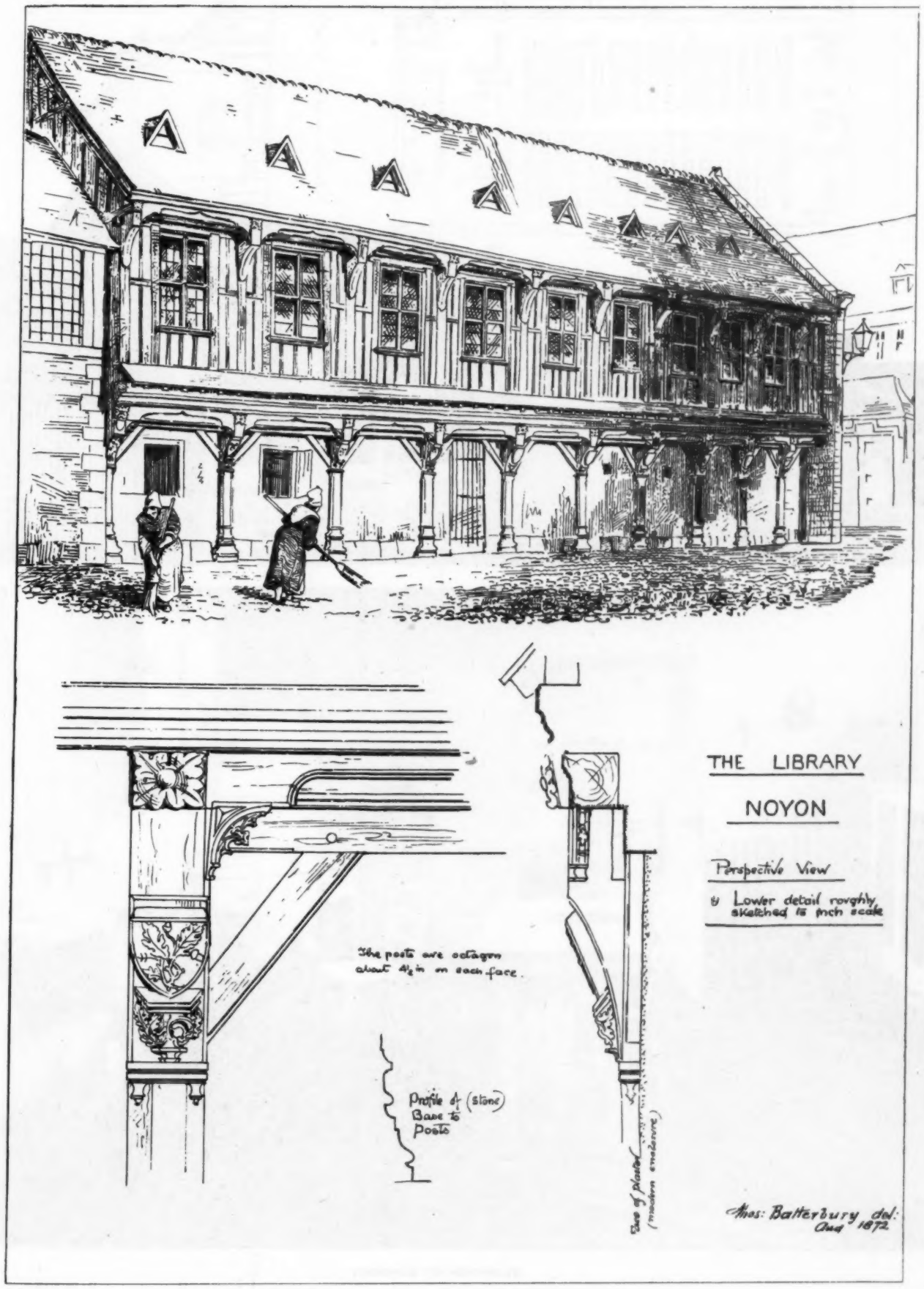
10 5 0 10 20

ILLUSTRATION NO. 20.

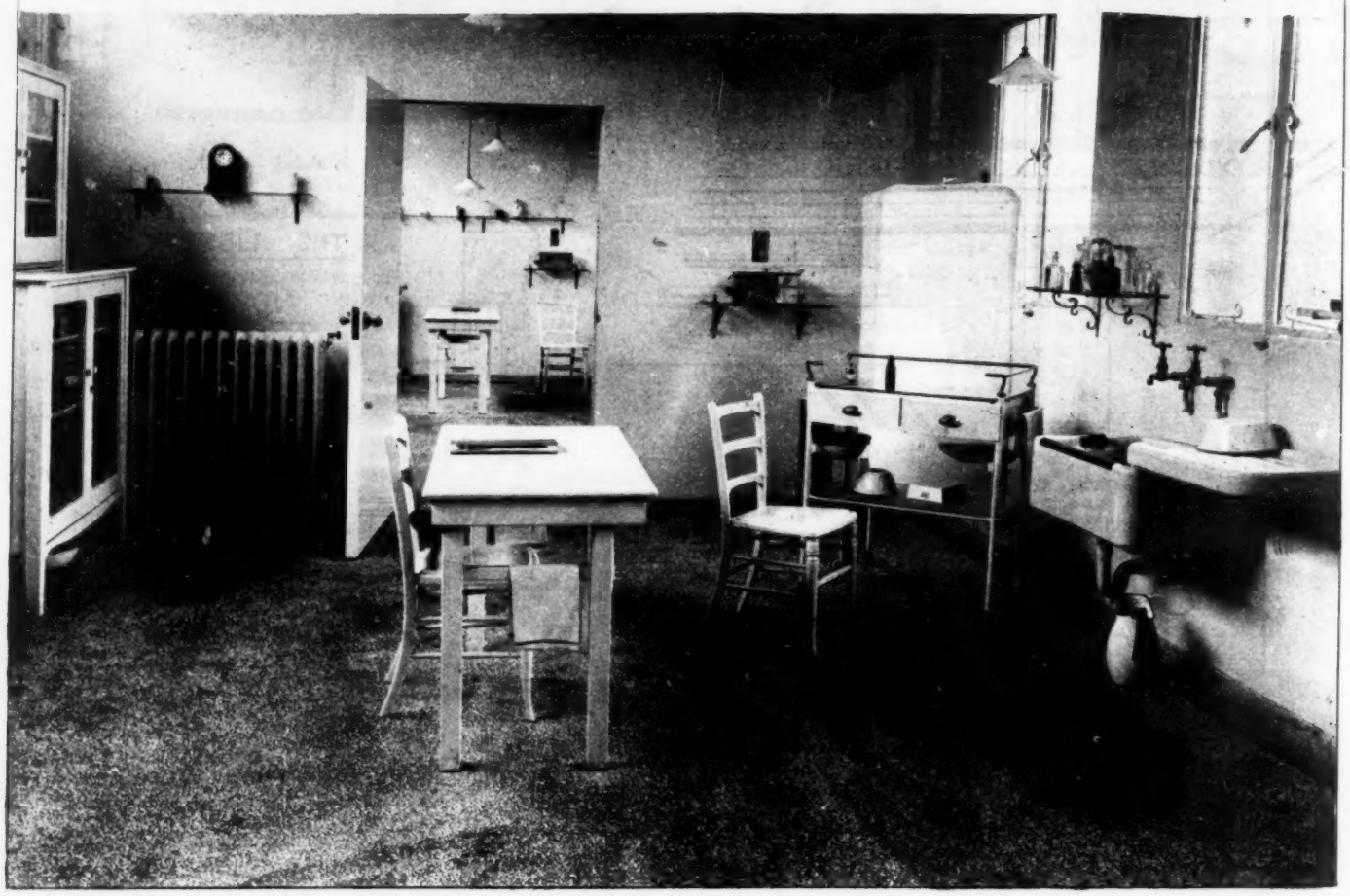
SUGGESTIONS IN HOUSING DESIGN.

FROM THE REPORT OF THE LOCAL GOVERNMENT BOARD COMMITTEE. (*See p.* 341.)

By permission of the L.G.B.


THE LIBRARY
NOYON
Perspective View
& Lower detail roughly sketched to inch scale
The posts are octagon about 4½ in on each face.
Profile of (stone) Base to Posts
Line of plaster (concrete ones removed)
Thos: Batterbury del: Aug 1872

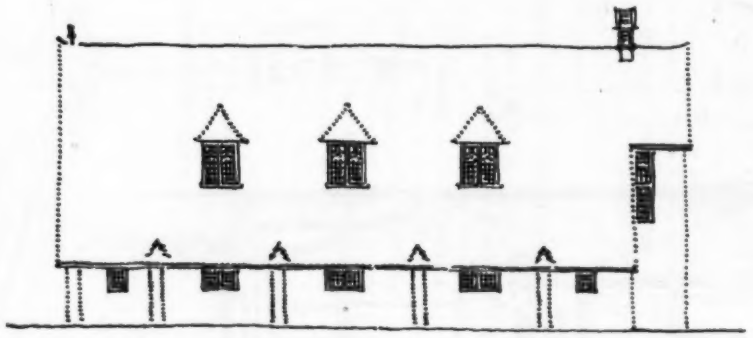
THE LIBRARY, NOYON.—FROM A DRAWING BY MR. THOMAS BATTERBURY, ARCHITECT.

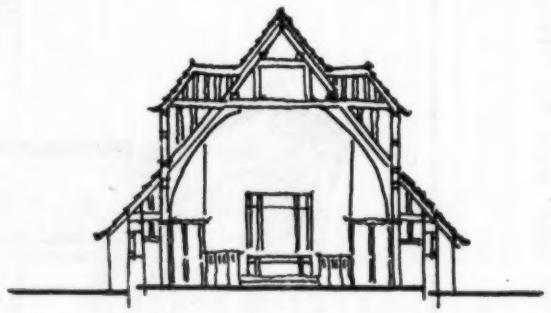


ELEVATION OF SURGERY.

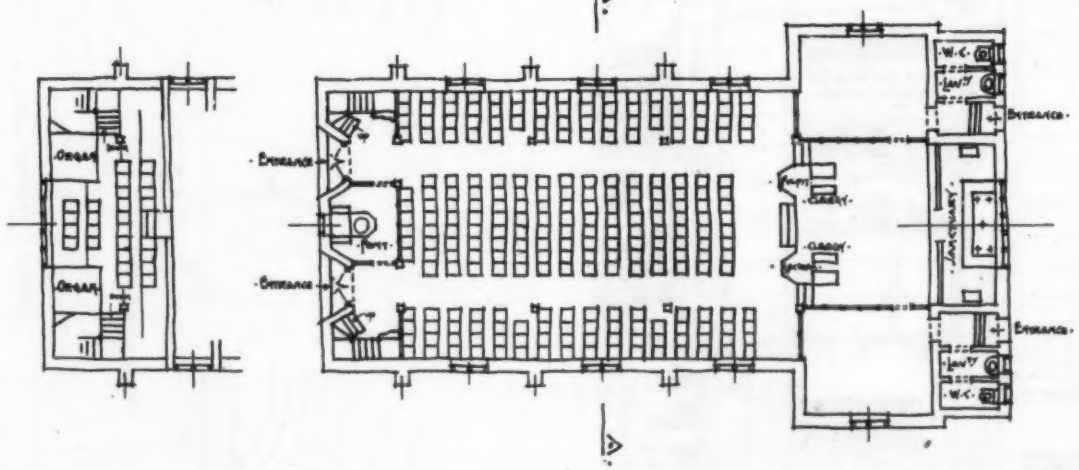
INTERIOR OF SURGERIES.

SURGERIES AND REST ROOMS AT A MUNITION WORKS.—MR. G. P. ALLEN, ARCHITECT.





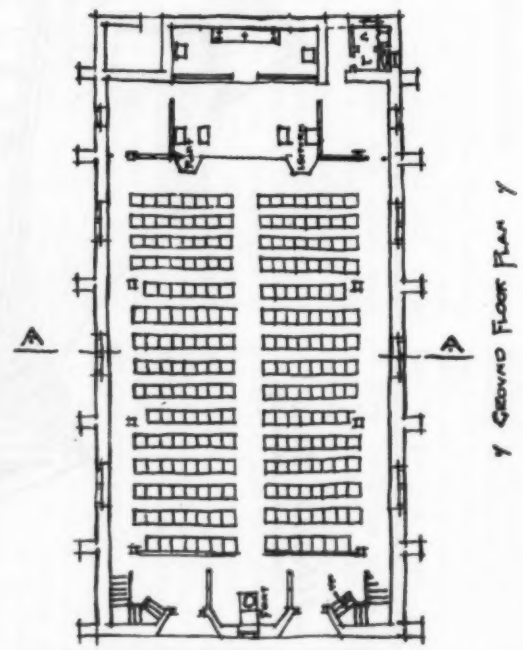
Y SECTION ON MAVE A-A Y



Y GALLERY PLAN Y

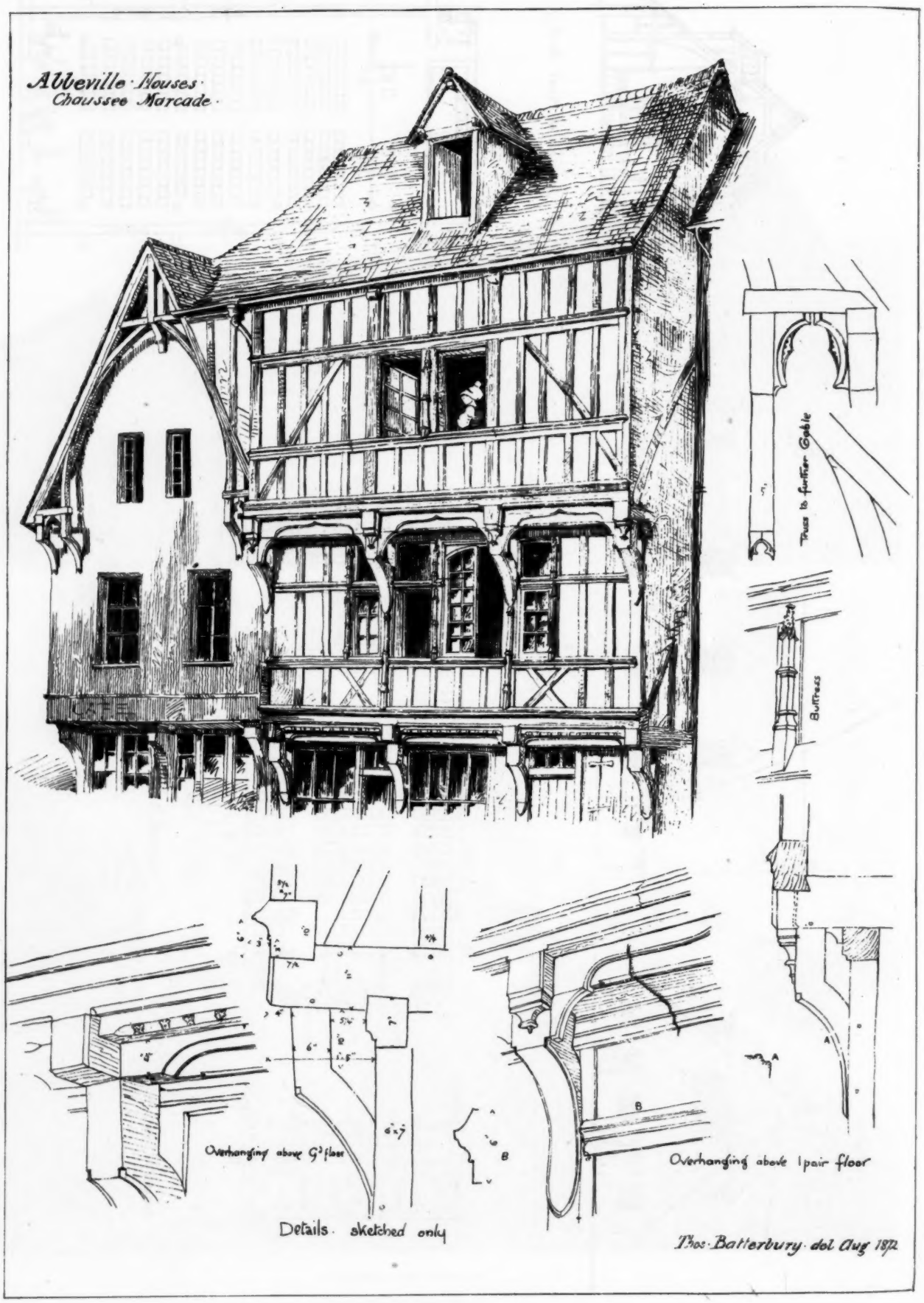
Y GROUND FLOOR PLAN Y

FRANCIS HOOPER F.R.I.B.A.
ARCHITECT
NORFOLK HOUSE
NORFOLK STREET STRAND
W.C.
19 APRIL 1913



Y GROUND FLOOR PLAN Y

A VILLAGE HALL AND CHURCH.—BY MR. FRANCIS HOOPER, F.R.I.B.A.



ABBEVILLE HOUSES.—FROM A DRAWING BY MR. THOMAS BATTERBURY, ARCHITECT.

A NATIONAL ARCHITECTURE.—VIII.

By W. R. LETHABY.

ROOTS OF LIFE AND WELLS OF INSPIRATION.

ARCHITECTURE has its roots far back in the beginning of things: it is a folk art. The inheritance of a tradition and the sympathy of the living are both necessary to its life, which develops by unceasing change. Victor Hugo was probably the first to put this fully and forcibly: "Architecture is a chronicle in stone. The greatest productions of architecture are not so much the work of individuals as of society—the offspring rather of national efforts than the conception of particular minds—the accumulation of ages—the residue of successive evaporations—a sort of deposit or geological formation.* Each era marks a level; each race deposits a stratum; each individual contributes a stone. Great edifices, like mountains, are the work of ages; the man, the artist, the individual are lost in these great masses. Human intelligence is there to be traced only in its aggregate. Time is the architect, the nation is the builder. The architecture of Europe, the younger sister of the great masonries of the East, presents an immense formation divided into superincumbent zones, the Romanesque zone, the Gothic zone, and the zone of the Revival" (*Notre Dame*).

Again Morris wrote:—"Gothic architecture reached its glorious position step by step, with no break and no conscious effort after novelty, from the wall of Tiryns and the Treasury of Mycenae."

The Persistence of the Primitive.

In primitive things there is some mysterious vitality. They came first because they were nearest to nature; but besides being early, they persist in underlying strata. A large stack of bricks which I saw from the train had its courses curving up towards the ends, and the faces were consequently battered: this is the constructive scheme of the pyramid of Sakkarah. In seeking for maximum stability in a structure, the Pyramids were evolved. They were not designed for beauty, they made themselves by the nature of things, hence their depth and mystery. Among the rude stone monuments of Brittany, I remember seeing a grave covered by a rude sort of corbelling or rather cantilever arch. It suggests possible developments in steel on a great scale. Fig. 1. The Forth Bridge, as its engineer told us, followed the principle of primitive log bridges. The wattle working of the ancient Britons still continues in Wiltshire hurdles and the sheep folds made of them. The using of such wattle work as a skeleton for daubing with mud and thus forming walls was continued until very lately. It is much the same principle as that now used for plaster ceilings and concrete work on metal meshes.

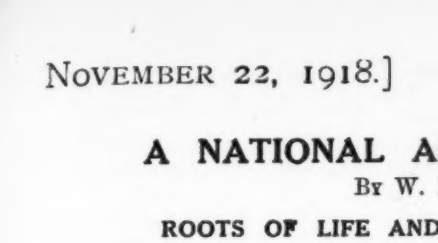


FIG. 1.

Domes, arches, and vaults were developed from huts formed of clay. Later the clay was subdivided into cakes and became crude bricks. Such unburnt bricks were the chief building material in Egypt, Assyria, Greece, and early Rome. I have been told that crude bricks were quite lately used in some parts of England. Then the clay cakes were burnt, but the modern brick wall is still in essence a clay wall. I never understood the form of Eastern domes, swelling slightly as they rise and then passing into a conical form, until I saw some photographs of Kirghez tents. These were covered with matting on a framework of bent reeds, which gave just the shape of the dome, while the bright patterns of the mats evidently suggested the kind of decoration afterwards obtained in glazed tiles. Many of these Eastern domes have a ribwork of timber, and the filling must be brick, clay, or plaster under the covering of tiles.

The greatest of all domes, that of the Pantheon, is a magnificent primitive hut, the eye in the centre representing an original smoke vent. With such ancestry there is little wonder that this vast cell is so mysteriously right, at once majestic and humble.

Columns with capitals seem to have had their origin in tent poles. The purpose of capitals has been explained as an expansion of size to lessen the span of lintels, but the Egyptian abacus, as a matter of fact, is contracted above the capital. It was an afterthought to give the capital something to do. The knob on the top of the tent pole was painted like a lotus flower. This seems to be the far away origin of the Ionic capital. The curious egg and tongue ornament, which we unthinkingly use by the mile, was in origin a row of lotus petals. The rude Irish round towers, with their solid conical terminations, are a perfect type for great towers: these and the stone-roofed chapels of an arched form within and slanting on the exterior, seem to be ideas which again might be greatly expanded.

Bent branches, or "knee timbers," used for angle pieces and brackets in wooden structures, were taken over into more shapely half-timber building as noticed by Harrison in his "Description of England." Only this summer I saw a new cart-shed constructed of rough timbers with bent branches for bracing brackets.

I do not suppose that much is to be gained directly by a study of things primitive, but I believe that what I may call a sense of the primitive and the natural origins of architecture is essential as a source of inspiration. We need full records of the primitive survivals in our own country, and a collection of traditions of workmanship, old building customs and words.* It is a right instinct to begin with a book of Genesis, not that we are to pretend to be like Adam, but that we may retain touch with the groundwork and a reverence for the fathers. Of all the higher things in art reverence is chief. "It is the contact with the past which equips men and communities for the tasks of the present; and the more bewildering the present the greater the need for inspiration and refreshment from the past."†

I have spoken here only of the rude and primitive, so that I might escape all danger of being thought to recommend style copying, but of course all past art is equally "given by inspiration for our instruction."

Unconscious Arts and Traditions.

Further source of refreshment would be found in resuming contact with customary arts which still go on almost unrecognised below the plane of the sanctioned architecture of the schools. There are still folk arts in Britain, such as wagon-building and gate-making. Much comparatively excellent building work was done in the country until quite lately, and some traditions of direct workmanship are yet extant. Near to where I stayed in the summer was a very fine group of farm buildings which can hardly have been built earlier than the middle of last century, yet they were sturdy, human-looking, and entirely delightful in the landscape. In the same neighbourhood are many excellent cottage porches and door shelters, and I saw one actually being done "out of the carpenter's head"—one of the most satisfying bits of modern architecture I have seen. Many of these door shelters are supported on iron brackets of various playful forms. There are also some excellent iron gates opening to front gardens. These things were evidently made by the blacksmith of the place.

I have not been speaking here of master-craftsmanship and of the workman's contribution to building excellence, but merely of the fact that such works constitute a living customary art. Old building traditions of all sorts ought to be put on record in regard to the gaining and preparation of materials and the use of tools. Masons have ways of bedding stone to keep out the rain, of relieving lintels from the load, of filling joints with garnetting and the like. Then there is a folk-lore of building. I want to know, for instance, in what districts they put up a bush when the roof ridge is set up, and what reason is given for it? Is it a Saxon, Danish or Norman custom? Even old words are worth preserving—durns of a door, heling slates, planchen floor, cornish, bresummer, scantling. The building feast should be brought back.

Again, there are other classes of modern building of which we should take note, as railway viaducts, brick kilns, pottery ovens and factory chimneys. One of the most perfect and good-looking structures which I have recently seen is a new stock-brick viaduct near Surbiton; frank, sound and tidy, even monumental, it gives me pleasure. Skew bridges, too, are frequently quite fine. This summer I "measured up" a brick kiln which was interesting in many ways. Its dome, or rather cone, was applied to the square substructure in quite a skilful way. Some brickwork was slanted across the angles in steep corbelling, but not so far as to change the square into a regular octagon. The circle was supported on the corbelling, but it was set back at the centre of each side, leaving a slight flat shelf. A similar solution had been arrived at in some Eastern domes. Pottery ovens are also interesting as domes; in a photograph which I have of a group of four they look quite like Eastern tombs. Fig. 2. Then there are the furnaces for glass making, drying kilns for hops and other purposes, and the still humbler doming over wells, all of which might form a basis for an English tradition of dome building. Factory chimneys it must be confessed are wonderful, in several respects they are the greatest architectural works of to-day.

The Public and the Craftsman.

The sympathy of the living is as necessary as the inheritance of a tradition. The understanding and interest of the people is altogether essential, for architecture must be an expression of the common thought. When there is no general interest this fact is still expressed as the architecture of anarchy, which may be seen in all the streets of London. To gain this interest architects must aim at intelligibility, scientific precision and economy of means. In constant experiment for the bettering of our dwellings, towns, and public services we should soon

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* This passage must have remained in the mind of W. Morris, whom I heard say he "one might as well criticise a geological period as a cathedral."

* Mr. Innocent's book is an excellent beginning of this work.

† A. E. Zimmern, *Nationality*, 1918.

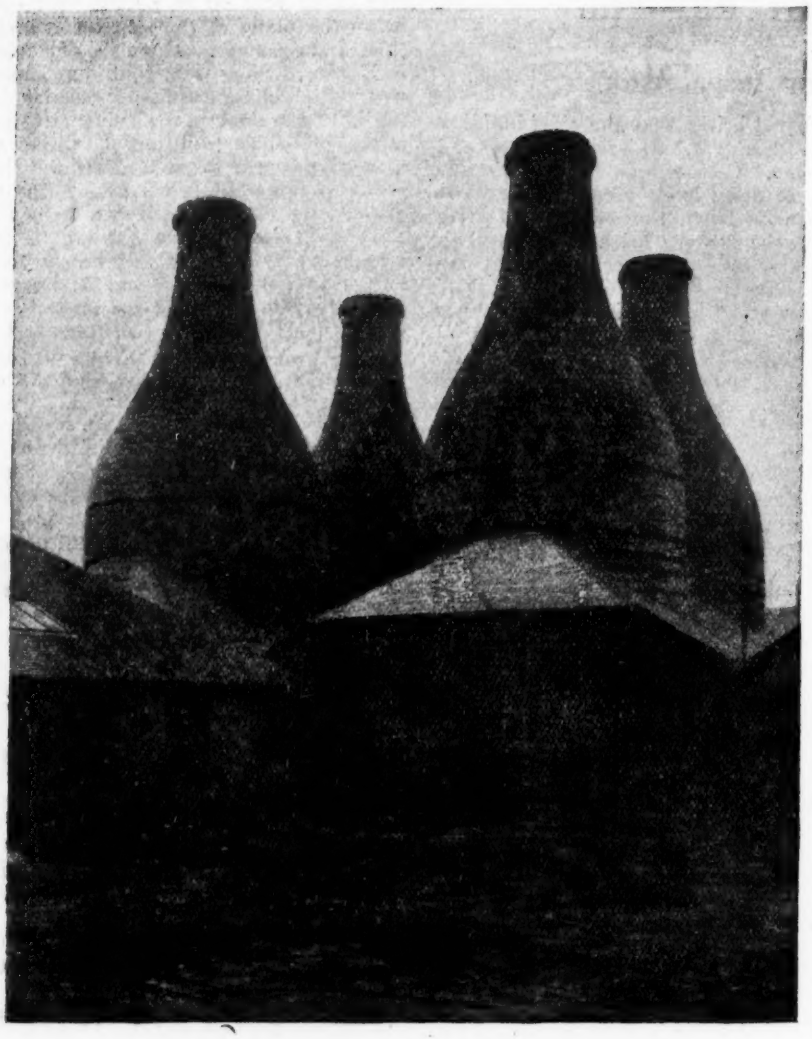


FIG. 2.—Pottery Ovens, Cobridge, Stoke-on-Trent.
MESSRS. WOOD & GOLDSTRAW, Architects

obtain the concurrence of the public. To help in such a development we require a stream of reasonable criticism, which will show architecture to embody general ideas that are easily understandable. I must venture a word on the workman - "the British workman" - for we cannot do anything worth while in architecture until we gain his interest. Architecture is a concert of the crafts. It is a commonplace that in mediæval days each craft contributed of its best, but it is hardly less true of the Renaissance, the difference is that in the earlier time everybody worked in one way, but in the later men had to be selected. Wren depended on his craftsmen for the minor beauties of his works, and any possible fine school of architecture must include the interest of developing workmanship. Our building work is starved thin for lack of the workman's contribution of ideas. True architecture rests on reverence for both labour and material.

A Flowing Tide.

To advance we must believe that advance is possible; we shall set up a movement by moving. Life is living. We must experiment, explore, and play the game; we must feel the constructive excitement. The history of architecture is a history of explorations, and we must take up the working out of ideas which will appeal to our generation. Problem solution has always been a chief element in architecture. Builders never aimed at a bare minimum utility, there was always some interest for the work's sake. The Greeks experimented with long lintels on tall columns; the Romans with wide spreading domes; the mediaevals with accurately balanced forces. In all these there was a sense of mystery, for they were finding facts and proving possibilities; there was even a certain delight in building puzzles, as in the tower of the Palazzo Vecchio standing over nothing, and the hanging vaults of Henry the Seventh's Chapel. Now, however, when we know that there is hardly anything that cannot be done, this wonderment architecture has necessarily passed away. The dominant interests to-day are sociological and scientific, and an architecture which shall be understood and valued must deal with these interests. Again we come round to the point from whence we see that the architectural interest at the present time is bound up with the bettering of civilization: its great mission is to make cities fit for healthy and happy people.

We have need to call in the sense of emulation between town and town, to call out local pride and cherish local character. Pink granite is most at home at Aberdeen, and Bath stone is not vulgar at Bath. Again we require festivals, Eisteddfods and folk schools, something which shall bring the people together in a common interest. Besides inter-civic rivalry in "good works" we have to become more conscious of the international competition in the works of civilization. If we were alone I should not know, and might therefore be contented; but I should not like England to be called the ugliest place in the world. I appeal to good will and to pride. Our art, the guild, the cause, the ship, the regiment, have always called out devotion: architecture now requires such deeply loyal service. Mr. Conrad says of sailors—"Their soundness is caused by a certain kind of love. . . . The ship, this ship, our ship, the ship we serve is the moral symbol of our life. A ship has to be respected actually and ideally; her merit and her innocence are sacred things. Of all the creatures of man she is the closest partner of his toil and courage. From every point of view it is imperative that you should do well by her; she claims not only your fidelity but your respect." A house is also a dear "creature of man," and "she" too claims a like reverence—clever design, "showing off," money-pride are all vain without such love and respect. If any general interest is to be stirred up for the promotion of civilization and the time of a flowing tide, every psychological means should be brought into concurrent action. I wonder if a patron saint would help? I suggest Wren—Saint Christopher Wren—for he had art patriotism.

OBITUARY.

Sir James Restler.

Sir James William Restler, K.B.E., M.Inst.C.E., M.I.Mech.E., Chief Engineer, Metropolitan Water Board, who died recently at 17, Queen's-gate, was born in 1851, and educated privately and at King's College. He was appointed chief engineer to the Southwark and Vauxhall Water Company in 1883, and passed with it to the Metropolitan Water Board in 1904. Sir James was consulting engineer to a number of private and local water enterprises, director of several companies, and chairman of the Metropolitan Munitions Committee. He was knighted last June. In 1875 he married Miss Janet Ferguson Creighton, of Kirkcaldy, and had one son and two daughters.

Captain A. Winter Rose.

Captain A. Winter Rose, of the Yeomanry, who died at Hastings on October 20, was the youngest son of the late T. E. Rose and Mrs. Rose, of Abingdon-villas, Kensington. He was educated at Bedford Modern School. After devoting himself to architecture, he won the travelling studentship of the Architectural Association and the Pugin medal and other distinctions. When war broke out he was in practice at Westminster. At the beginning of hostilities he obtained his commission in the Yeomanry, and devoted himself to recruiting and training. He went to France with his regiment in June, 1915, and was wounded at Monchy, where he won the M.C. Later he was appointed adjutant of his regiment. Returning from the front only this year to follow a Staff course, he was attached quite recently to an R.A.F. cadet school as instructor. Within a few days of taking up his new duties he contracted influenza, of which he died. He leaves a widow and a daughter. Several of his architectural works have been illustrated in our pages.

Mr. Norman Nisbett and Mr. W. R. Walker.

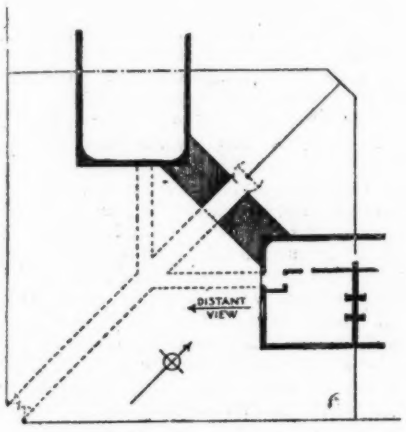
Mr. Norman Nisbett, an architect and antiquary, well known in Hampshire and Sussex, has died at Winchester from pneumonia following on influenza. As architectural surveyor to the Dean and Chapter he had much to do with the six years' work of reparation of the Cathedral under Sir Thomas Jackson, and with the diver, Mr. W. R. Walker, who died from the same cause recently. On hearing of the death of Mr. W. R. Walker, chief diver to Messrs. Siebe, Gorman & Co., Ltd., the King wrote to Sir Francis Fox, under whose supervision Mr. Walker was engaged in the underpinning of the foundations of Winchester Cathedral, expressing regret at the death of one "who did so much useful work in connection with Winchester Cathedral," and sympathy with his family.

War Shrine for Hyde Park.

To commemorate the cessation of hostilities Mr. S. J. Waring has asked Sir Edwin Lutyens to prepare a new design for a permanent shrine for Hyde Park, which shall symbolise the victory of Right over Might and the triumph of Justice. Mr. Waring is informed that such a memorial will cost him roughly £50,000.

HOUSING, AND AGAIN HOUSING.

THE report of Sir Tudor Walters' Committee on Housing is now published. As might be expected, it is lengthy and full of interesting matter. The names of the members of the Committee are familiar to those who have studied the subject, and guarantee the sound, sane and sensible views that are expressed.



TREATMENT OF CORNER PLOTS.

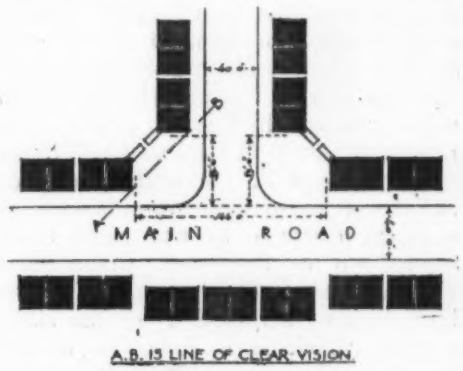
The Committee or Sub-Committees examined one hundred and twenty-seven witnesses, experts in architecture, engineering and building, administrators in State and municipal departments and representatives of trades and trades unions; expert information was also supplied by over sixty others. Whilst no strikingly original opinions are expressed, an immensity of serious thought has been expended on the subject in various directions, and this has been sifted, examined, then co-ordinated and indexed, and forms a valuable contribution to the literature of the subject.

In addition to a steady demand of 100,000 houses per annum, 500,000 is given in the report as the figure necessary to overtake arrears. Full recognition has been given to the services rendered in the past by private enterprise, and the report says: "It is certain that, even upon the most optimistic anticipation of what local authorities will be able to do, a very large proportion of working-class housing will still depend upon private enterprise of one kind or another, either that of public utility societies or of speculative building."

Unfortunately for the supply of houses, the Finance Act (1909-10) seriously retarded such enterprise, arrested the development of building estates, and led, years before the war, to great diminution of house building. The problem is now aggravated by the high prices prevailing, and it is frankly admitted that "private enterprise, owing to high prices and to the difficulty of securing labour and materials, is not likely, unless special faculties are afforded, to undertake house building for the first two or three years after the declaration of peace, until conditions become normal and the effect of the experiments in housing by local authorities can be ascertained."

Confronted by this impasse, the Committee reports "The housing problem cannot be adequately dealt with unless the Housing Departments of the Local Government Boards are able to bring within their purview the entire housing requirements of the community, and are vested with powers that will enable them to supervise and co-ordinate the housing work, both of local authorities and of private enterprise. A complete survey of the housing requirements of the country should be taken and periodically revised to compare the provision that is being made with the continuing necessities. To achieve these ends, a strong Housing Department, with an experienced and capable chief commissioner, should be created both at the Local Government Board for England and Wales, and at the Local Government Board for Scotland. Some steps in this direction have already been taken in regard to Scotland. If the country were divided into districts, and local commissioners appointed, working under the central control but with executive powers vested in them, the problem could be dealt with more effectively and with greater despatch. These commissioners should be men with technical knowledge and experience in housing, acquainted with modern methods of town-planning and development, and imbued with a real live interest in their work. Their functions should be to encourage and assist local house building, and, primarily, to secure effective co-ordination between the various local authorities, public utility societies, and other forms of private enterprise, so that the requirements of each district may be fully met. In these commissioners might be vested considerable discretionary powers with respect to building by-laws, so that modifications and relaxations might be made to suit the requirements of individual schemes and avoid the expenditure of unnecessary money, while, at the same time, safeguarding the public from doubtful experiments."

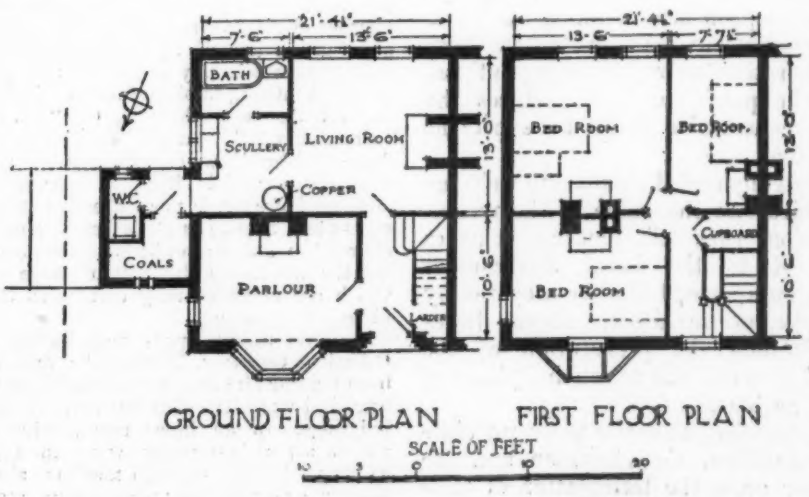
We quote the recommendation made in support of public utility associations This we cordially endorse. "There is great scope in housing for the public utility societies if properly handled, and these should be made an important auxiliary to the work of the local authorities. The grouping of large employers (as public utility societies) in the industrial districts of cities for the purpose of the



OPEN SPACES AT JUNCTION OF ROADS

erection of villages on the outskirts, planned on modern lines, would be a great boon to the working classes and would have the advantage of being carried out in the form of complete schemes rather than the present unsatisfactory method of rows of gloomy houses surrounded by factories and works. The local authority might, with advantage to the public interest, be represented upon the boards of management of such public utility societies and thus secure a measure of permanent public control so as to preserve the amenities of the district. The grouping of large estates for similar purposes might be undertaken, and, in these cases, the local authorities might also, with advantage, be represented upon the boards of management. A representative of the tenants upon the boards of management of such societies fosters a community of interest between landlord and tenant, and promotes a communal spirit which expresses itself in social and recreative clubs and institutes, and in educational work."

Some of the working classes are not without suspicion that public utility



PLAN SHOWING LINKING-UP OF BLOCKS OF COTTAGES.

societies would be liable to exploit tenants in their need of houses. Viewed in the light of present-day opinion, they regard the housing of the past as entirely unsatisfactory, and they attribute the inadequate accommodation and wretched conditions existing in so many places to the exactions of inconsiderate landlords. But we are inclined to believe that these conditions really arose from the class of speculative builders who first essayed the provision of houses. Responsibility for most of the housing schemes in being can hardly be imposed upon architects. It was the neglect to employ them which led so often to the miserable results so familiar to all of us.

We agree with the authors of this report that the extension of public utility societies registered by and under State supervision as suggested, would raise the whole standard of housing, whilst the limitation of dividend upon the share capital, which is a condition of the formation of such societies, would render all surplus revenue resulting from good management available for promoting the amenities of the various housing projects.

Whilst upon this matter of ways and means we would urge the application of co-operative methods to the housing problem. The people have proved their administrative ability, and we are satisfied that the successes attendant upon co-operation in the past would be maintained if directed to building homes.

We are glad to find that Sir Tudor Walters' Committee considers the advisability of local authorities laying out suitable lands in the areas acquired, providing the sewers and roads, and leasing or feuing the land for private building schemes of an approved kind. Such a policy would ease some of the heavy financial obligations and encourage wider effort amongst co-operators and others. The recommendation tendered by the Committee as to greater elasticity in the statutes and in local acts appertaining to building will be generally acceptable. We heartily concur in the statement that rigid forms are inconsistent with the control of a progressive building industry and that power should be given to the Local Government Boards to exempt any housing schemes of which the plans and specifications are approved by them from such statutes, by-laws or regulations, as in the particular circumstances the Boards consider it would be expedient to enforce.

Every enlightened citizen will welcome and appreciate the value of the recommendation that all housing schemes submitted to the Local Government Boards for approval shall be prepared by a competent architect, whose duties shall include the preparation of the lay-out plan and the design and planning of all the houses.

In conclusion, we desire to congratulate the Committee, the chairman and the secretary upon the termination of their arduous and valuable labours.

EXHIBITIONS OF THE WEEK:

Modern Masters of Etching at the Leicester Galleries. Drawings of Oxford.

THE present exhibition of masters of etching at the Leicester Galleries is one of exceptional merit and interest, both from the artists selected and the quality of their work. The French and English masters of this art are well represented, and their work shows astonishing variety; we find here such famous cartoonists and caricaturists as Steinlen, Félicien Rops, Legrand, Forain, beside Glyn Philpot, Nelson Dawson, McBey and D. Y. Cameron.

Even Manet finds a place, in an etched study of his famous "Olympia"; and Pissarro, in some interesting studies of Rouen. The joyous nudities of Anders Zorn, etched with increasing freedom of line, absolutely scintillate with life; and Besnard's Rembrandtesque depth of shadow corresponds to an intensity of mental analysis, in his series of "La Vie d'une Femme"—though we frankly prefer his admirable interior of the old Cathedral of Fuenterrabbia, that frowns across the Bidassoa upon the frontiers of Spain.

In a London exhibition we turn our thoughts to English etchers. Mary Cassatt can scarcely be placed with these,—a pupil of Degas, as we believe, her art is obviously also influenced by the Japanese, and her "Toilette Devant la Glace" might be by some pupil of Hiroshige. Her work is admirable, and deserves to be as well-known in London as it is already in America.

Sir Frank Short and Mr. D. Y. Cameron, Mr. Sickert and Mr. McBey—who has an exhibition this month at Colnaghi's Galleries—are to be studied here; but the surprise and delight of the exhibition are the thirty-three etchings by J. M. Whistler. These are a revelation of the variety and brilliancy of this master of the burin—for the technique of "La Vieille aux Loques," of the "Marchande de Moutarde," and the marvellous interior of "The Kitchen," varies absolutely from the clean, hard line of "The Black Lion Wharf," and yet again from the mystery and subtle charm of "The Beggars," or the "Balcony, Amsterdam." The "Upright Venice" gives a wonderful view of the Salute Church, as seen across the lagoon from the Riva—though its agitated gondolas do suggest exasperated caterpillars engaged in a steeplechase. We regret that in an exhibition of this importance Sir Charles Holroyd is not included; his etched work, sound in drawing and classic in the best sense, was a notable contribution to English etching in late years.

In our Notes of last week we alluded briefly to the drawings of Oxford by Mr. G. F. Nichols, at the Twenty-One Gallery in the Adelphi. These are, in fact, rather coloured drawings than watercolours properly so called. They seem to be on a cool, grey-tinted paper, which occasionally shows through in the lights, as in the "Merton Tower," and gives a delightful coolness to the effect. On the other hand, real sunlight is impossible under these conditions. We recently visited Oxford in the brilliant weather of August last, and can recognise how much of the warmth and richness in these old buildings, which only needs the sun to bring it out, is missing in these studies. Most of all is this the case where, as in "St. Giles'," "Christchurch," "In the High," and "Magdalen Cloisters," we can see from the shadows that direct actinic light is intended. This method, however, is most effective in twilight effects and nocturnes ("Cathedral and Christchurch"); and we can have nothing but praise for the admirable drawing of these studies, which are architecturally correct as they are pictorially pleasing.

A clever study, apart from Oxford, is the "Ancient Gateway, Evesham"; and, in fact, both Oxfordshire and Worcestershire are full of beautiful unspoiled churches and old timbered buildings. In an inner room, Miss Nichols shows some interesting work in dry-point etching. Of this difficult medium she has a thorough grasp; her water-colours, seen here, cannot be considered as on the same level.

THE ARCHITECTURAL ASSOCIATION.

AN APPEAL BY THE PRESIDENT.

THE following appeal has been issued by the President of the Architectural Association, Mr. H. M. Fletcher. We refer to it on page 330:—

Appeals are at no time easy to make; at this time, when they are multiplying on every side, the task is unusually hard. But there was never a time when the right answer, in the form of ready help, was more satisfying to the giver. If I venture to appeal to you on behalf of the Architectural Association, it is from intimate knowledge, and from the conviction that all support given to us in present difficulties will be so much equipment for the warfare, to be waged after the war, against squalor, slums, and want of foresight in planning and building. The cause of architectural education, with which the Association has always been identified, is the cause of civic decency, of proper housing, of that material civilisation which must, as we are at last being forced to recognise, be brought within reach of all, for otherwise mental and spiritual civilisation can be enjoyed only by the few who are able to afford them.

Architects know this, and the appeal to them will not be in vain. They will give what they can. But our livelihood has been swept away, and it is little that we can give. We turn, therefore, to a wider public, to all those who are interested in architecture, and who realise that without trained architects our future towns will merely repeat the disorderly jungles that we see where speculative commercialism has been uncontrolled by skill and foresight.

Founded in 1847, with the King as Patron, the Association is recognised as the representative body of the students and younger members of the profession. Being without endowment, it depends upon subscriptions, donations and students' fees for its means. In the past, six of its members have received the Royal Gold Medal for architectural merit, and nine have become Presidents of the Royal Institute of British Architects. At present, six are professors of Architecture in our British Universities. Up to the outbreak of war, the Association had the largest school of architecture in the country. With over 100 students, and a record of continuous growth, its prospects were bright. Since August, 1914, it has been carried on at a loss, in the determination that when peace is declared, the framework, at least, shall be there, ready for immediate expansion. This loss it is now our endeavour to make good. As for our present doings, there is hardly a regiment in the Forces without an officer from the Association. Six hundred of our members are on active service, of whom 82 have given their lives. Many have won honours and decorations. Before conscription was decreed, upwards of 2,000 men were recruited from architectural and kindred callings by the Association Bureau.

Like most other societies, we refuse to press for subscriptions from those who are offering their lives; we are, therefore, compelled to seek them from other sources, that our younger men, on their return, may find the Association in a sound position, and its school still in being. Without generous and immediate help the very life of the Association is at stake. Our present need is £1,500 to meet liabilities; after the war, the terms of our lease commit us to a building programme, which is also necessary for the efficiency of our school. Already disabled and discharged men, whose training has been interrupted, or who seek to recover lost ground, are beginning to return for study. The training of architects, the object for which we ask your aid, is nothing less than a national need.

Cheques, drawn to "The Architectural Association," to be sent to the Secretary, 35, Bedford Square, W.C. 1.

HENRY M. FLETCHER, *President.*

Fuel Economy.

In consequence of pressure on our space, we are holding over until next week the continuation of Mr. A. H. Barker's articles on "Fuel Economy."

THE SURVEYORS' INSTITUTION.

PRESIDENT'S ADDRESS.

THE opening address of the new Session of the Surveyors' Institution was delivered on the 11th inst., by Mr. J. H. Oakley (President), at the Ordinary General Meeting of the Institution.

In the course of his remarks the President gave a sketch of the activities of the Institution since its foundation in 1868, and some consideration as to the manner in which the aims of its founders had been carried out. At a meeting called on March 23, 1868, the following resolutions were passed :—

"1. That it is expedient that an association be formed, to be called 'The Institution of Surveyors.'

"2. That the undermentioned gentlemen do, with this object, form themselves provisionally into such an association, and take the necessary preliminary measures for organizing the Institution, viz., Messrs. Chas. F. Adams, Virgoe Buckland, Wm. Jas. Beadel, Fredk. Jas. Clark, Edward Norton Clifton, John Clutton, Henry Crawter, John Bailey Denton, Robert Collier Driver, Richard Hall, Thomas Horsey, Henry Arthur Hunt, Thomas Huskinson, Jeremiah Matthews, John Oakley, Edward Ryde, Edmund James Smith, William Sturge, George Trist, and Francis Vigers."

A committee was formed to draw up by-laws and regulations, which were adopted at a meeting on June 15, 1868, and the Institution formally launched on its career.

The objects in the minds of its founders were dealt with very ably and fully by John Horatio Lloyd in the discussion on the opening address of the President on November 9, 1868. He divided them under three main heads: (*a*) Intellectual advancement, by promoting a higher standard of educational training; (*b*) social elevation, by raising the status of the profession in the eye of the public; and (*c*) moral improvement, by fostering the best spirit of professional conduct. The Institution commenced with a membership of about 200, and grew steadily year by year until 1914, when the total of all classes reached 5,387. A most important addition to the membership took place in 1905, when the members of the Irish Land Agents' Association were admitted *en bloc*, becoming the Irish Branch of the Institution. The effect of the war in cutting off the supply of candidates for examination and election, and in removing from the list many members who have died in the great cause, had been to prevent the normal wastage from death and retirement being made good, so that a slight reduction in membership had taken place during the past four years, the total now being 4,896.

In 1888 a new departure, which was to have a marked effect on the future of the Institution, was introduced by the establishment of Provincial Committees. Its object was to strengthen the ties between members practising in the provinces and the central body; to place upon them a part of the responsibility of administering the Institution's affairs; to enable the opinion of the profession on legislative and other proposals to be speedily and accurately ascertained; and to stimulate that corporate feeling upon which the strength of professional societies must largely depend.

"Although the Surveyors' Institution was not the oldest of the professional societies, it was the first to introduce the examination system as the qualification for membership. Starting in 1881 with 13 candidates in the preliminary and two in the professional examinations, the high water mark was reached in 1913, the year before the war, with 146 candidates in the preliminary and 1,266 in the professional. The effect on membership was equally noticeable. In 1881 there were 535 members, the following year 722, and within a decade the total had reached 2,268. The standard of examination, which from the first was set at a high level, had been steadily raised as the higher attainments and better opportunities of the candidates permitted his to be done, while the importance of keeping them thoroughly practical in character had never been overlooked. In 1890, special diploma examinations in advanced land surveying, forestry, and sanitary science were established, these being open to members wishing to qualify as specialists in these subjects.

"The desire of the Council to raise the intellectual standard of the profession was further indicated in 1905, when they decided to place at the command of those about to adopt it the highest educational facilities which the country could offer. Scholarships were established, tenable for three years at any recognised university in the United Kingdom, and in any course approved by the Council as bearing on the training of a surveyor.

"The duties imposed upon surveyors and and agents become more and more exacting and call for the highest possible technical training if success is to be attained. This, perhaps, is not difficult to understand if one considers the wide scope of the surveyor's business. Speaking from a knowledge of that branch in which I myself mainly practise, an intimate knowledge of agriculture, forestry, building construction, accounts, local and imperial taxation, drainage, the Agricultural Holdings Acts, Acts for the compulsory acquisition of property, and other statutes dealing with landed property, must be looked upon as almost essential; while some knowledge of such subjects as agricultural chemistry, geology and botany, water supply, sanitary science and local government is also necessary. The standard of our technical education must therefore, I think, tend to become even higher in the future than it has been in the past, and our examination syllabus may before long have to be revised in order to meet the ever-increasing demands of our profession. Certainly I believe this to be the case with regard to the land agency branch, and I have no doubt that it is almost equally so in connection with the urban, building and mining divisions.

"Nor has the need under the second heading, viz. (*b*), "Social Elevation, by Raising the Status of the Profession in the Eyes of the Public, been overlooked.

'Even in the earliest days of the Institution it was quickly recognised as a body from which practical and impartial information might be obtained on every subject connected with real estate. Few, if any, commissions or departmental committees investigating such questions have sat during the past fifty years without the assistance of members being called in either as witnesses or as commissioners. I need not attempt a detailed list; it is enough to mention such diverse inquiries as the various commissions into the state of agriculture, the London water companies, the disposal of sewage, town holdings, local taxation, afforestation and coast erosion, not to mention a whole host of minor inquiries ranging from small holdings to building by-laws, and from sales of estates to the public Health Acts.

"Itwas therefore, perhaps, not surprising that the Institution early obtained statutory recognition, the first occasion being under the Metropolis Management and Building Acts Amendment Act, 1878, when it was appointed as one of the two professional bodies empowered to report to the Secretary of State upon any new by-laws framed by the Metropolitan Board of Works. Later came the London Building Act, 1894, under which the duty of nominating a surveyor to sit upon the Tribunal of Appeal was imposed upon the Council; the London County Council (General Powers) Act, 1909, dealing with regulations for the erection of buildings in reinforced concrete; the Finance (1909–10) Act, 1910, under which the president of the Institution was associated with the Lord Chief Justice and the Master of the Rolls to draw up a panel of referees composed of members of the Institution or other qualified persons to hear appeals under the Act; the Defence of the Realm (Acquisition of Land) Act, 1916, which followed the precedent of the 1910 measure; and the Corn Production Act, 1917, in which the president is constituted the authority to nominate arbitrators to hear appeals against orders made by the Board of Agriculture or county executive committees under Part IV of that Act, to mention the more important only. . . .

"Even since I have been a member of the Council I have seen a marked change in our status. The value of the Institution as a source of information, and the readiness which the Council and members generally have, I am proud to say, shown in placing their knowledge at the disposal of the public, have led to increased demands upon their experience from both official and unofficial quarters; and although this may have made great calls upon the time of members acting upon committees, their services have been ungrudgingly given, and have indirectly benefited the profession by making its scope and activities more widely understood and by raising the social status of those who practise in it. . . .

"The third of the three objects mentioned by Mr. Horatio Lloyd was (*c*) 'Moral Improvement,' which he considered would be attained by fostering the best spirit of professional conduct.

"My remarks as to the manner in which (*a*) and (*b*) have been carried out apply largely to (*c*) also, as successful efforts to raise the educational and social standards of a profession must necessarily exercise a beneficial influence upon the professional conduct of its members. But, apart from this, the influence of the Council through the Professional Practice Committee has been in the direction of inculcating a high ideal of professional honour and conduct among members; and although in individual cases lapses from this model may occasionally be brought to the notice of the Council, an expression of disapprobation on their part usually suffices to prevent a recurrence of the conduct in respect of which complaint was made, and the tendency generally has been definitely upwards. . . .

"With regard to members serving, it is impossible to keep in touch with all, or correctly to record the figures at any particular time, but approximately some 2,420 of those connected with the Institution have joined the naval or military forces, the total membership at the commencement of the war being about 5,380, a truly wonderful record. This is entirely outside those who are doing war work of a non-combatant nature, the number of whom cannot be estimated, but must comprise a very large proportion of the remainder. Unfortunately such a record could not be achieved without a long list of casualties, and I regret to say that the number of those known to have made the great sacrifice now amounts to 247. We all honour their memory and extend our sincere sympathy to their relatives. . . ."

The President concluded his address by offering to present to the Institution a permanent record of those members who had died for their country, to take the form of a Roll of Honour.

Demobilisation.

The Ministry of Reconstruction have issued as the third of their "Reconstruction Problems Series," a pamphlet on "The Demobilisation and Resettlement of the Army," which consists of a clear and concise statement of the many-headed problem covered by the word demobilisation as it affects the N.C.O. and the private. There is included in the pamphlet a series of questions and answers—the questions being assumed to be put by the soldier seeking information as to the manner in which he is personally provided for. The answers include all the details of the process of restoring the soldier to civil life.

BUILDING PERMITS—PLAN TO ALLOCATE MATERIAL.

IMPORTANT recommendations for the control of building and the improvement of the supply of materials are made in the report of the Committee appointed by the Minister of Reconstruction a year ago to consider the position of the building industry after the war. Mr. James Carmichael is the chairman of the Committee, and the other members, all of whom sign the report, are Sir A. Shirley Benn, M.P., Mr. C. B. Broad, Sir Maurice Bonham Carter, Mr. John Good, Mr. W. J. Jones, Mr. H. D. Searles Wood, F.R.I.B.A., Mr. James Storrs, Mr. J. Walker Smith, F.S.I., and Sir J. Tudor Walters, M.P.

The Committee recommend that a Central Building Industry Committee be appointed at once, consisting of a chairman (who should be a member of the Standing Council on Priority) nominated by the Minister of Reconstruction, and 45 other members as follows:—"One nominated by the Minister of Reconstruction; one by the County Councils Association; one by the Association of Municipal Corporations; one by the Urban District Councils Association; one by the Rural District Councils Association; two each by the Royal Institute of British Architects, the Institution of Civil Engineers, the Surveyors' Institution, and the Institute of Builders; one by the Society of Architects; four each by the Joint Industrial Council for the Building Industry and the National Federation of Building Trades Employers; two by the Federation of Manufacturers of Building Materials; one each by the Timber Trades Federation and the National Federation of Builders' Merchants' Association; four by the National Federation of Building Trades Operatives; one representative of each of nine Regional Building Industry Committees in England and Wales to be set up; and six representatives of Scottish interests."

The following are the proposed terms of reference to the Central Building Industry Committee:—

(i) To determine, subject to the directions of the Standing Council, all matters connected with the reorganisation of the building trade consequent on the transition from war to peace conditions, and to advise the Standing Council upon all building questions in connection with national reconstruction.

(ii) To take all necessary steps in conjunction with the Regional Committees to be constituted under clause (iv) to foster and stimulate the production of the building resources of the country and of all descriptions of materials required for the industry.

(iii) To allocate, under the direction of the Standing Council, building materials for the direct needs of Government Departments, railway companies, and such other public services as may be determined by the Standing Council.

(iv) To constitute in each of the Regional areas defined in the schedule hereto a Committee consisting of representatives of local authorities, architects, civil engineers, surveyors, builders, building material manufacturers and merchants, and labour.

(v) To constitute a National Building Industry Committee for Scotland with such devolution of authority as will enable such Committee to determine all matters connected with the building industry which are of purely Scottish interest.

(vi) To arrange for the distribution through the medium of the Regional Committees of the block allocations of materials made to or for the purpose of the building industry other than for the services enumerated in clause (iii).

(vii) To prepare and submit to the Standing Council for approval a scheme to be administered by the Regional Committees whereby building permits under specified conditions will be necessary before any building operations (other than those for the direct needs of Government Departments and the services specified in clause (iii)) exceeding in value £500, or such other amount as may from time to time be determined by the Central Committee, can be undertaken, and providing for the grant by the Regional Committees of such permits.

(viii) To consider as to the modification or withdrawal of, and to modify and withdraw, subject to the approval of the Standing Council, from time to time as circumstances permit, the restrictions placed upon the building industry under any scheme made under paragraph (vii)

The regional areas proposed are those from time to time adopted by the National Federations of Building Trades Employers and Building Trades Operatives.

Deficiency of Materials.

The Committee have satisfied themselves that for some time sufficient material will not be available to meet the demand, and that a certain measure of control and regulation will be requisite. The general lines on which they think that the increase in production of materials can best be advanced are summarised as follows:—

"Priority of release upon demobilisation for the professions and trades concerned in the building industry.

"Release at the earliest possible date, well in advance of the commencement of demobilisation, of pivotal men required for the production of materials.

"Immediate provision of labour to get and prepare earth during the ensuing winter for the making of stock bricks, so as not to miss manufacture in 1919.

"Immediate facilities for repairs, renewals, and restoration of works.

"The release from Government occupation, at the earliest possible moment, of brickyards and premises now occupied for storage, &c., in order to allow of preparation and equipment for early resumption of brick making operations.

"The securing of adequate supplies of fuel and raw materials.

"The scrapping of inefficient plant and the introduction of more modern appliances and increased use of machinery.

"The use of local materials wherever possible, to secure economy in transport.

"Institution of scientific and industrial research in the respective trades, and the practical application of the results.

"Possibly, in certain circumstances, financial assistance by the State in extensions and equipment of works.

"Closer co operation between employers and employees through every means available, such as the operations of the Joint Industrial Committees.

"The establishment of confidence in the various trades by the knowledge of a sufficiency of work for some time in advance. This could be secured by such means as the early placing of contracts wherever possible for post-war delivery of materials, such as bricks, stone, &c.

"Standardisation of fittings in all trades, especially for cottages, so that manufacture might proceed without delay.

"Immediate steps to be taken by H.M. Government for importation of at least 100,000 standards a month of soft wood for all purposes during the first year after the war."

As an instance of the deficiency of material, the Committee say that the proposed erection of 300,000 houses in the first year after the war would require 6,000,000,000 bricks. The average annual production during the last three years before the war was only 2,805,000,000, and the estimated maximum output with the existing plant, provided sufficient labour is available, is less than 4,000,000,000.

The Central Committee, who throughout will work in close association with the Standing Council, will settle the principles on which works to be proceeded with at once should be grouped, and the regional committees will issue or defer building permits on the general instructions issued by the Central Committee. Broadly speaking, the procedure will be as follows:

Control of Prices.

It is considered that the Central Committee should absorb the functions of at least those of the several controllers who deal with materials used mainly in the building industry. The Committee add that they have reason to believe that the professional and trade organisations they have consulted will be in general accord with their proposals.

With regard to prices, the Committee are of opinion that regulation will be best effected by the general increase of the building productivity of the country, and that it must be one of the primary functions of the Central Committee to attain that end. It will tend to the most economical production for both employers and employees, to know that there is ample work available, and one of the ideals of the Central Committee should be to utilise the building resources of the country in such a manner as to regulate the supply and demand with the object of instilling a feeling of security and confidence into the whole industry. For the purpose of securing an increase in the building production of the country it may be well to have a reservoir of work, which would include the ever increasing demand for workmen's houses, which could be utilised to maintain the stream of labour and production. This reservoir would need to be controlled, and might be used to make up the normal stream of building work in any part of the country where, for some unforeseen reasons, the flow of such work might fall short of the power of production.

During the period of transition the Central Committee, in advising as to the maximum amount of building production that could from time to time be expected, will have to consider the question under three general headings—labour, materials, and transport—and in regard to these the Committee lay down certain general principles, which should be followed. They desire, however, to make it clear that financial and other conditions will change materially from time to time during the next few years. "The organisation which we recommend will, we consider, be well calculated to adapt procedure to the changing conditions from time to time during the transition period, whilst maintaining the main principles which we have laid down."

THE ASSESSMENT OF AN ENGINEERING WORKS ENGAGED ON MUNITIONS.

IN the Court of Quarter Sessions for the County of Middlesex recently, Messrs. S. Smith & Sons (Motor Accessories), Ltd., appealed against the assessment to the Poor Rate of their works at Cricklewood, and the respondents were the Assessment Committee of the Parish of Willesden. The appeal was in respect of a rate made in April, 1917, and chargeable in two instalments, the assessments being for the first instalment gross estimated rental, £3,645; rateable value, £2,430; and for the second instalment gross estimated rental, £4,720; and rateable value, £3,147. Each of these assessments was objected to on the ground that in arriving at the assessment the machinery upon the premises had been rated and that the assessments were thereby excessive and not in accordance with the legal decisions on this question.

The valuers for the Assessment Committee claimed that, by the decision of the House of Lords in the case of Kirby *v.* Hunslet (1905), they were entitled to value the engineering machinery as if it were rateable. The Court decided against the Assessment Committee and reduced the rateable value for the first instalment of the rate from £2,430 to £1,437; and for the second instalment from £3,147 to £1,915.

The rating surveyors engaged as witnesses for the appellants were Mr. H. E. Elkins (Humphreys-Davies & Co.), 5, Laurence Pountney-lane, London; and Mr. H. H. Fuller, 15, Serjeants-inn, London; and for the respondents, Mr. A. L. Ryde, of Messrs. Ryde & Sons, 49 & 50, Parliament-street, Westminster, and Mr. P. Ryan, of 1, Albemarle-street, W.

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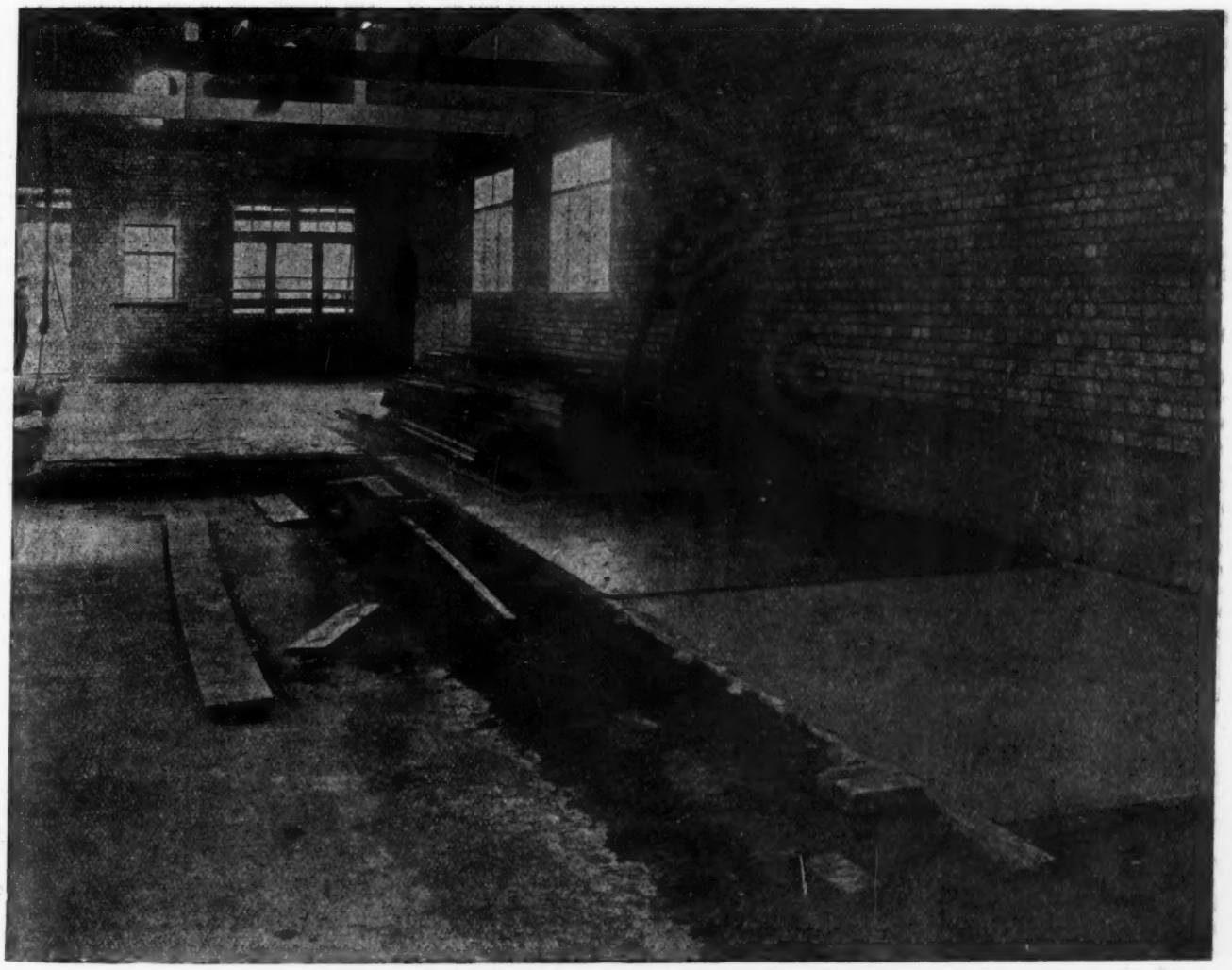

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THE BUILDING TRADE.

THE BUILDING INDUSTRY DURING THE TRANSITION PERIOD.

AN interesting report of the Building Materials Supply Committee of the Ministry of Reconstruction (Mr. James Carmichael, J.P., Chairman) has been issued upon the extent of the probable demand for building materials and the extent of the available supply during the transition period between the cessation of war and the return to normal conditions. The report also deals with the possibilities of increasing the present available supplies and considers the principles and method by which the priority of various claims shall be settled in the event of the supply of materials or labour being insufficient to fulfil the total building demand.

The report discharges the reference made to the Committee in November, 1917, so far as relates to England, Scotland and Wales; Ireland will be the subject of a supplemental report. The detailed enquiries were confined to the materials essential for works of building construction, and the Committee considers that the transition period may be said to have been passed when there is sufficient material available to meet the needs of all. All other proposals for rationing, controlling, and granting of permits to build must be regarded merely as temporary expedients designed to tide over the transition period, during which sufficient material may not be available for all, and, therefore, should be allocated to those works which are of the greatest national importance. As the result of enquiries the Committee concludes that the demand will be in excess of the average production of the last three years prior to the war; as an instance, it is stated that to build the 300,000 houses required for England and Wales would require 6,000,000,000 bricks, 50 per cent. more than may be expected to be produced annually even it the existing works are made to produce to their utmost capacity, from which it may be inferred that there is a fine opening for enterprise in brick production. Having regard to the unsatisfactory condition of many of the works, and to the anticipated shortage of labour, fuel, &c., it appears to the Committee impossible to secure production of bricks to meet the probable demand—at, least, during the first two years after the war—and the like remark applies to certain other essential building materials.

As regards timber, it appears that the stock of imported soft wood in this country at the end of this year will be about two months' consumption, as against the normal pre-war stock of six months' con-umption, when the annual import was two million standards. The available supply from all sources is apparently not more than sufficient to meet half the annual pre-war demand of all European countries, so that the annual share of this country will only be one million standards for the next year or two. The Committee, therefore, concludes that it is necessary to take immediate steps to secure that proportion for this country, and, in addition, to secure an ever-increasing supply till there is sufficient to meet all demands, and it has made representations to the Ministry already in regard thereto. It follows that a certain measure of control and regulation will be requisite.

Much evidence was received and suggestions made as to the manner of increasing production. One suggestion was that no measure of supervision, priority, or control should be exercised, and that immediately the war ceases, producers should be permitted to sell in the open market to any purchaser for any purpose. This suggestion reflects the widespread desire in the building trade to be rid of Government control, as exercised during the war, and although the Committee could not recommend its adoption, it probably influenced its conclusions as to the character and degree of control recommended later in the report.

The Committee does not make any proposals with reference to the control of prices, although it states that it is a question which will need consideration in the light of circumstances as they may be found to exist. Neither does it propose that manufacturers should do other than sell in the open market. It does propose, however, a policy designed to fairly equalise supply and demand, and to secure that works of national importance shall receive essential supplies. Without some such policy it is wisely pointed out that the prices of certain materials would rise enormously and certain works of national importance, which appear in themselves financially unattractive—such as the provision of workmen's houses—would be unable to obtain adequate supplies on account of the stress of competition.

The Committee also feels compelled to submit the views so persistently and forcibly put before it, that the present scale of taxation, by way of excess profits, is such as is not calculated to bring forth the greatest effort under peace conditions. It is a pity that this aspect of the matter was not entered into more fully in the report, because it is believed that a reconsideration of the operation of the excess profits tax ought now to be made by the Government, and unless strong pressure is brought to bear, the Treasury may shrink from disturbing a tax which has proved so vastly remunerative, but which may prove to be a deadening influence upon the development of that high production which is admitted on all sides to be a prime factor in enabling this country to bear the cost of the War.

The general lines upon which the Committee thinks the increase in production of building materials can best be advanced are given on another page.

Upon the machinery under which the priority of various claims should be settled, the recommendations are shortly these:—

It is understood to be the intention of His Majesty's Government to appoint forthwith:—

(*a*) A Post-War Priority Committee of Ministers to determine broad lines of policy with regard to priority.

(*b*) A Standing Council for consultation with and for securing the advice of representative trade bodies, for furnishing the Cabinet Committee with considered counsel and assistance in the detailed execution of the policy determined upon.

The Committee proposes the establishment of a Central Building Industry Committee with a Chairman (who should be a member of the Standing Council), nominated by the Minister of Reconstruction, together with representatives of the local authorities and the organizations concerned—*e.g.*, architects, civil engineers, surveyors, employers and operatives, building material manufacturers and merchants. This Central Building Industry Committee to determine, on lines of policy laid down by the Standing Council, all matters connected with the production of materials and the allocation, through Regional Committees or otherwise, in the national interest, of the building materials and resources of the whole country. England and Wales to be divided into eight Regional areas, those of the National Federation of Building Trades Employers are indicated as convenient for the purpose, in each of which a Regional Committee is to be set up composed similarly to the Central Building Industry Committee already referred to.

The functions of these Regional Committees will be to act under the general direction of the Central Building Industry Committee in the stimulation of building production within their areas and in the regulation and distribution of building resources and of such materials as may, by reason of insufficiency, require allocation.

Regulation is to be effected by means of the issue of building permits by the Regional Committees. Thus a building owner desirous of building will submit his plans for approval by the Local Authority in the usual way. Having received the usual approval, he will make application to the Regional Committee for a permit to build (on which will be stated the estimated cost and the quantities of specified materials required). The Regional Committee will decide, after considering the nature of the building, the local circumstances and the materials and labour available, whether the building permit shall be issued or not.

Upon issue of a permit, no further priority of materials or labour will be issued or required. The builder will be free to order the materials from the manufacturer or merchant as and when he chooses from the area of allocation.

The only works to proceed without permits (including works of repair, &c.) will be those under £500 in value. This limit will be varied by the Central Committee as circumstances require. Allocation to meet the direct needs of Government Departments and public services (such as railways), to be made by the Central Committee under the specific direction of the Standing Council. Those who have had experience of the way in which the £500 limit has worked during the war will view that part of the recommendation with mixed feelings, because it lends itself to a good deal of evasion in the case of work which can be carried on out of the public eye; and, if what one hears is true, has been systematically ignored in certain branches of the trade during the war.

There is another point which it is to be hoped will not be overlooked in the working out of the details of this scheme.

There is no price control and no provision to prevent hoarding of materials; everything depends upon the permit, and unless it is provided that no hoarding shall be allowed and that no materials may be purchased without a permit, there is nothing to prevent speculative buying up of materials by persons whose sole idea is to resell at a profit. In this way a series of profits may be made upon one set of materials before they reach the building owner's work and prices will be correspondingly inflated. The £500 limit leaves a permanent loophole of that kind, and reconsideration should be given to the recommendation, so that the liberty to buy and sell in the open market, provided under the Committee's scheme, should not be abused by speculative profiteers.

The decentralisation of the granting of permits will be a great convenience to the builders, while the composition of the Regional Committees secures the advantage that a good deal of local knowledge will be at the Committee's disposal, but it would appear to be an indispensable corollary that the block allocation of materials to the respective Regional areas should be efficiently managed. Upon the working of this part of the scheme the report seems rather wanting; perhaps it will require further study and be made the subject of a supplementary report, seeing that it is by no means a small matter and will require special machinery to handle satisfactorily.

The Committee makes a specific recommendation as to the constitution of the Central Building Industry Committee, wherein it would appear that satisfactory representation has been accorded to the various organised bodies connected with the building industry, and the Regional Committees are to follow the same lines.

It is evident that a conscientious attempt has been made to place, as far as practicable, the

working of the necessary control in the hands of those most interested in making it operate fairly, but as little onerously as possible, and in bringing it to an end as soon as may be, and the Building Materials Committee and its Chairman may be congratulated upon the manner in which they have acquitted themselves of a very difficult task.

Upon the question of promoting the most economical production from both employers and employees, attention is called to the need of so utilising the building resources of the country as to regulate supply and demand and instil a feeling of security and confidence into the whole industry that there is ample work available.

Reference is also made to the need for close consultation with the Ministry of Labour and with the Industrial Councils and other recognised bodies in regard to the utilisation of the labour to the best advantage as being a determining factor in assessing the output from the building industry.

It is also proposed to press the claims of the building industry for priority of treatment as regards transportation of materials.

In conclusion, the Committee points out that financial and other conditions will change materially from time to time during the next few years; hence the general views of the policy which should be pursued expressed by the Committee and its recommendations for a flexible organisation calculated to adapt its procedure to the changing conditions, whilst maintaining the main principles laid down.

LONDON MASTER BUILDERS' AND AIRCRAFT INDUSTRIES' ASSOCIATION.

WE take the following from the monthly letter of the Secretary of this Association, Mr. S. B. Dopree:—

Good Time Keeping Bonus.

This important point has again been considered, and the following resolution was carried at the last Council Meeting:—

"That this Council decides that any system of bonus on output other than actual measurement or profit sharing is improper, and if in force must cease at once."

Compulsory Wage Awards.

Members will possibly have noticed reports in the public Press and elsewhere of the appointment by the Ministry of Reconstruction of a new Committee under the chairmanship of Sir John Simon. The terms of reference being:—

(1) Whether the compulsory operation of awards made under the Munitions of War Acts, of orders extending such awards, and of orders regulating wages made under those Acts, should be continued after the war.

(2) Whether the power to make such awards or orders should be continued after the war.

(3) The manner in which awards and orders if made or continued should be enforced after the war and for what period.

This is a matter of great importance, and the Council has appointed a Special Committee to consider the issues involved and make a report thereon.

Aircraft Contracts.

A deputation from the Council recently had an interview with Sir John Mann, Controller of Munitions Contracts, and fully laid before him the objections to certain unreasonable clauses in contracts issued from that Department, more particularly the clause requiring contractors to undertake risks of rises in wages and materials in cases of contracts under three months' duration.

The Controller expressed his thanks to the deputation for their attendance and also sympathy with some of their views, ultimately promising that they should be conveyed to the Colwyn Committee which is appointed to deal with building construction contracts.

The following is a copy of a letter received from Sir John Mann under date October 28:—

"With reference to the recent deputation from your Association and other allied Associations, I am directed to inform you that in accordance with my promise the question of the inclusion of Cost Variation Clauses in short period contracts has been submitted to the Treasury Commmittee on Contracts under the chairmanship of Lord Colwyn. After careful consideration that Committee has decided that if so arranged with the contractor, the Cost Variation Clause may be inserted in contracts whose duration is two months or more. Instructions are therefore being given that if contractors so desire, and if the Contracts Officer is satisfied that the price is based upon the rates of wages and cost of material prevailing at the date of the contract, the usual Cost Variation Clauses will be inserted if the contract is for a period of two months or more."

Local Conciliation Board.

The first meeting of the London Branch, under the scheme for better co-ordination between the employers' and operatives' organisations in the building trade and Government Departments in regard to regulation of wages and conditions during the war, was held on the 10th inst., and dealt with the following matter:—

Sanction required by a firm engaged in London in the construction of reinforced brick floors to pay the following rates:—

Floor-layers 1s. 6d. per hour.

Centerers 1s. 2d. to 1s. 3½d. per hour according to experience.

Ordinary labourers 1s. 1½d. to 1s. 2d. per hour.

And in addition to these rates a bonus of 12½ per cent. and 2s per week walking money for each man.

Decisions.

That bricklayers employed exclusively on laying brick reinforced floors can be paid 1d. per hour above the ordinary bricklayer's rate.

Reinforced brick floors:—

Ordinary labourers shall be paid 1s. 1½d.

Labourers employed on centering ½d. or 1d. per hour more.

Leading hands or gangers an extra rate per hour according to experience.

That walking time shall be paid in accordance with the Working Rule Agreements or as awarded on any particular job by the Committee on Production.

Road Transport.

The Board of Trade Divisional Road Transport Board, London and Home Counties Division) has under consideration the question of the utilisation of vehicles on return journeys of ten miles or over, and has invited the assistance and interest of the Association, with a view to formulating a scheme which would effect economy in working. The Association is taking steps to obtain all necessary information in order to, if possible, put forward a workable proposition, and at the same time safeguard the interests of members.

Roll of Honour.

Mr. Howell J. Williams, an old and respected member of the Association, informs me that his son, Captain Ifor Williams, 15th Royal Welsh Fusiliers (London Welsh), died in France October 9, 1918, of wounds received on October 8.

I also regret to report that Lieut. (Acting Captain) Aubrey C. F. Hill, R.A.F., died of pneumonia on active service in France on October 24, 1918. Lieut. Hill was third son of the late Mr. Joseph Hill (senior Director, Messrs. Higgs & Hill, Ltd.), and head of the firm of Messrs. Foxley & Co., Bayswater.

Since receipt of the above sad news comes that of the death on October 28, of pneumonia, of Mr. Eric Rowland Hill, youngest son of Mr. Joseph Hill, aged 29.

Mr. Ben Carter, who is well known to many members of the Association, will, I feel sure, have the recipient of general sympathy in the loss of his son, Flight Cadet Harold Carter, who was killed in a flying accident on Sunday, October 27.

NOTES FROM THE FOREIGN PRESS.

EXHIBITION OF ECONOMICAL BUILDING MATERIALS.

To help solve the pressing housing question, an exhibition of economical building materials will, according to *Beton und Eisen*, for September 5th, be held in the Exhibition Hall of the Zoological Gardens in Berlin from November 2 till December 8 of this year. Besides plans and drawings, there will be several actual buildings constructed of materials exhibited. The occasion will afford an opportunity to determine standard patterns of windows, doors, cornices, mouldings, &c. Simplicity with utility will be aimed at in everything.

WORKMEN'S COTTAGES.

The question of improving mining villages is occupying public attention in France. It is suggested in the *Bulletin de la Société de l'Industrie Minérale*, No. 1, 1918, that the cottages be of various types to suit the different requirements of the population. As to size, they should be of two, three, or four rooms. The grouping, too, should be varied. A grouping in blocks of four will be found very satisfactory both from the economical point of view and from the standpoint of general appearance. The cottages may be built in blocks of two, four, or six, but never more than six. Long rows of houses all alike are things of the past.

THE "WILSON" BRIDGE OVER THE RHONE AT LYONS.

A description is given in the same journal of this recently completed bridge. It is an arch structure, with twin masonry ribs, carrying reinforced-concrete floors, and is named in honour of the President of the United States. There are four elliptical arches, 138 ft., 148 ft., 161 ft., and 148 ft. in span, with an approach arch at each end, making the total length 743 ft. It carries a roadway 36 ft. wide, with two footpaths each 15 ft. wide, making a total of 66 ft. Except for differences in dimension the arches are all similar, each arch being composed of two independent ribs, 16½ ft. wide and 36 ft. apart, resting on independent piers.

MUNICIPAL TENEMENT BUILDINGS IN ZURICH-WIEDIKON.

The dearth of small houses and dwellings is so great in Zurich that the Municipality has decided (says *Schweizerische Bauzeitung* for August 31) to take the matter in hand and provide suitable accommodation. There was a considerable body of public opinion which favoured the provision of small houses for one or, at most, two families, but this was not deemed practicable under the local conditions, and a limited competition was decided upon in which five selected architects submitted designs. The design which was placed first was that of Bram Bros., and the work is to be carried out in accordance with their design. A block plan and plan and cross section of one of the buildings is given in the article, from which it appears that the buildings will be grouped in two squares. On the east and west sides of each square the buildings will extend for the full length of the sides of the square, but the blocks on the north and south sides will be shorter, to permit of entrance to the central portions, which are laid out as gardens, and also to permit of better circulation of air. The accommodation to be provided by the designs of Bram Bros. will comprise 30 double houses with 3 floors, containing 186 two- and three-room dwellings. A long extract from the assessor's report on the competition is reprinted in the journal, from which it appears that the two-room dwellings were to comprise: a living room 13 sq. metres, bedroom 15 sq. metres, kitchen 10.75 sq. metres; and for the three-room dwellings: a living room 13.65 sq. metres, bedrooms 13 and 13.23 sq. metres, and kitchen 10.75 sq. metres, the height in the clear to be 2.5 m. The architects had to furnish with their plans binding estimates from builders. The estimate for the approved design was Fr. 51 per cubic metre say (13.8d. per cubic foot), with a war-time increase of 20 per cent. added. The total cost to the municipality for the scheme in question will be about £126,000.

RATES OF WAGES IN THE BUILDING TRADE.

THE following are the present rates of wages in the Building Trade in the principal towns of England and Wales. It must be understood that, while every endeavour is made to ensure accuracy, we cannot be responsible for errors that *may* occur :—

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Masons' Labourers.	Bricklayers' Labourers.	Plasterers' Labourers.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Aberdare	1/3	1/3	1/3	1/3	1/3	1/3	1/2	1/-	1/-	1/-
Accrington	1/3½	1/3½§	1/3½§	1/3½§	1/3½§	1/5½	1/3½§	1/-§	1/-§	1/-§
Altrincham	1/6§	1/6½	1/6§	1/6§	1/6§	1/6§	1/5§	1/2§	1/2§	1/2½§
Ashton-under-Lyne	1/6½	1/6§	1/6§	1/6§	1/5½	1/6§	1/5½	1/2½	1/2½§	1/2½§
Barnsley	1/3§	1/2	1/1½§	1/-§	1/1½§	1/3§	11	11	11	11
Barrow-in-Furness	1/3½	1/4	1/4	1/3½	1/3½	1/3½	1/3½	1/1	1/1	1/1
Barry	1/3	1/3	1/3	1/3	1/-	1/3	1/2	1/-	1/-	1/-
Bath	1/1	1/1	1/1	1/0½	10½	1/1	1/-	10½	10½	10½
Bedford	1/1	1/1	1/1	1/1	1/1	1/1	10	10	10	10
Birkenhead	1/6§	1/6§	1/6§	1/6§	1/6§	1/6§	1/6§	1/2½§	1 2½§	1/2½§
Birmingham	1/4	1/4	1/4	1/4	1/3½	1/4	1/3§	1/1	1/-	1/1
Bishop Auckland	1/2½	1/2½	1/4	1/2½	1/2½	1½	11	11	11	11
Blackburn	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½§	1/1½	1/1½§
Blackpool	1/-	1/2	1/2	10½	8½	1/ ‡	10½	8	8	8
Bolton	1/5§	1/5§	1/5§	1/5½	1/4½	1/6§	1/5§	1/-§	1/-§	1/1½
Bournemouth	1/1	1/1	1/1	1/1	1/1	1/1	1/-	10½	10½	10½
Bradford	1/3½	1/3½	1/3	1/3½	1/2½	1/3	1/1	1/1	1/1	1/1
Bridgwater	1/-	1/-	1/-	1/-	1/-	1/-	11	9½	9½	9½
Brighton	1/1½	1/1½	1/1½	1/1½	1/1½	1/1½	1/-	11	11	11
Bristol	1/3	1/3	1/3	1/3	1/3	1/3	1/2	1/-	1/-	1/-
Burnley	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5§	1/1½§	1/ ½§	1/1½§
Burton-on-Trent	1/2	1/2	1/2	1/2	1/2	1/2	1/1½	11½	11½	11½
Bury	1/5§	1/5§	1/5§	1/5§	1/4½§	1/6§	1/5§	1/-§	1/0½§	1/0½§
Cambridge	1/1½	1/1½	1/1½	1/1½	1/1½	1/1½	1/-	10½	10½	10½
Cardiff	1/3	1/3	1/3	1/3	1/3	1/3½	1/2	1/-	1/-	1/-
Chatham	10½‡‡	11‡‡	11‡‡	11‡‡	11‡‡	11‡‡	9½‡‡	8‡‡	8‡‡	8‡‡
Chelmsford	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11	11	11	11
Cheltenham	1/0½	1/0½	1/0½	1/ ½	1/ ½	1/0½	1/ ½	10½	10½	10½
Chester	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/2§	1/-§	1/-§	1/-§
Chesterfield	1/-	1/2	1/1	11	10	11	1/-	8-8½	8-8½	8-8½
Colchester	11	11½	11½	1/-	11	1/-	9½	9½	8½	8½
Coventry	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/2½	1/0½	1/0½	1/1
Crewe	1/ ½	1/ ½	1/3§	1/0½	1/ ½	1/2	1/0½	8	8	8
Darlington	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3	1/0½	1/0½	1/0½
Derby	1/2	1/2	1/2	1/2	1/2	1/2	1/0½	11	11	11½
Doncaster	1/-	1/1	1/1	10½	10½	10	9½	10½	10½	10½
Dudley	1/2	1/2	1/2	1/2	1/2	1/3	1/1	11	11	11½
Durham	1/2	1/2	1/1½	1/2	1/ ½	1/10	1/0½	9	9	9
East Glam. and Mon. Valleys	1/3	1/3	1/3	1/3	1/3	1/3	1/2	1/-	1/-	1/-
Exeter	1/-	1/-	1/-	1/-	1/-	1/0½	11	10	10	10
Folkestone	1/-	1/-	1/-	1/-	1/-	1/-	10	9	9	9
Gloucester	1/0½	1/0½	1/0½	1/0½	1/0½	1/0½	11½	10½	10½	10½
Grantham	9½	10	9½	9½	10	8½	8	8	7½	8
Grays	—	1/-	1/-	—	—	1/-	10½	—	10	10
Grimsby	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/-½	1/-½	1/-½
Great Yarmouth	10	10	10	10	10	10	8½	7	7	7
Guildford	1/1	1/-	1/-	1/1	—	1/1	11½	9½	9½	10
Halifax	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/1	11½	11½	11½
Harrogate	1/ ½	1/0½	1/-	1/-	1/-	1/2	1/1	10	10	10
Hartlepools	1/3½	1/3½	1/3½	1/3½	1/2	1/3½	1/3	1/0½	1/0½	1/0½
Hastings	10	10	10	10	10	10	9	9½	7½	7½
Hereford	1/ ½	1/3½	1/3½	1/0½	1/ ½	1/0½	11½	10½	10½	10½
Huddersfield	1/3½	1/3½	1/5½	1/1	1/1	1/2	11	1/0½	1/0½	1/0½
Hull	1/4§	1/4§	1/4§	1/4§	1/4§	1/4§	1/3½	1/2§	1/2§	1/2§
Ipswich	1/1½	1/1½	1/1½	1/2	1/2	1/2½	1/0	11	11	11
Lancaster	1/1½	1/3	1/2	1/1½	1/1½	1/2	1/1½	11	11	11
Leamington Spa	11½	11½	11½	11½	11½	11½	10½	8½	8½	8½
Leeds	1/3½	1/3½	1/3	1/3	1/3½	1/5	1/0½	1/0½	1/0½	1/1
Leicester	1/2	1/2	1/2	1/2	1/2	1/2	1/1	11½	11½	1/-
Lincoln	1/1½	1/1½	1/1½	1/1½	1/1½	1/1½	1/0½	10½	10	10½
Liverpool	1/6§	1/6§	1/6§	1/6§	1/6§	1/6§	1/6§	1/2½§	1/2½§	1/2½§
Llanelly	1/3	1/3	1/3	1/3	1/3	1/3	1/2	1/	1/-	1/-
London	1/5	1/5	1/5	1/5	—	1/5½	1/2½	1/1½	1/1½	1/1½
Loughborough	1/3½§	1/2½§	1/1½§	1/3½§	1/3½§	1/1½§	11§	1/0½§	11½§	1/0½§
Luton	1/1	1/1	1/1	1/1	1/1	1/1	1/-	11	11	11
Maidstone	1/1	1/1	1/1	10	10	1/1	1/-	10	10	10
Manchester	1/6½	1/6½	1/6§	1/6§	1/5§	1/6§	1/5§	1/2½	1/2½§	1/2½§
Mansfield	1/1½	1/1½	1/1½	1/1½	1/1½	1/1½	1/0½	10½	10½	10½
Merthyr Tydfil	1/3	1/3	1/3	1/3	1/3	1/3	1/2	1/-	1/-	1/-
Middlesbrough	1/3½	1/3½	1/3½	1/3½	1/2	1/3½	1/3	1/0½	1/0½	1/0½
Newcastle-on-Tyne	1/3½	1/3½	1/3½	1/3½	1/2	1/3	1/4§	1/0½	1/0½	1/0½
Newport, Mon.	1/3	1/3	1/3	1/3	1/3	1/3	1/2	1/-	1/-	1/-
Northampton	1/1	1/1	1/1	1/1	1/1	1/1	1/-	10½	10½	10½
Norwich	1/-	1/-	1/-	1/-	1/-	1/-	11	9½	9½	9½
Nottingham	1/2½	1/2½	1/2½	1/2½	1/2½	1/3½	1/1	1/0½	1/ ½	1/0½
Oldham	1/5	1/5	1/5½	1/5½	1/4	1/4	1/5½	1/1½§	1/1½§	1/2§
Oxford	1/0½	1/-	1/-	1/-	1/-	1/-	11	9½	9½	9½
Plymouth	1/2	1/2½	1/2	1/2	1/2	1/2	11½¶	11	11	11
Pontypridd	1/3	1/3	1/3	1/3	1/3	1/3	1/2	1/-	1/-	1/-
Portsmouth	1/-	1/-	1/-	1/-	1/-	11	10	9½	9½	9½
Preston	1/4½	1/4½	1/4	1/3½	1/3	1/4	1/3½	1/0½	1/0½	1/0½
Reading	1/1	1/1	1/1	1/1½	1/2	1/1	11½	11	10½	10½
Rochdale	1/6§	1/6½	1/6§	1/6§	1/4	1/6§	1/5§	1/1½§	1/1½§	1/2§
Rochester	10½‡‡	11‡‡	11‡‡	11‡‡	11‡‡	11‡‡	9½‡‡	8‡‡	8‡‡	8‡‡
Rugby	1/1½	1/1½	1/1½	1/1½	1/1½	1/1½	1/0½	10½	10½	11½
St. Albans	1/-	1/-	1/2	1/-	1/-	1/-	10½	9	9	9
St. Helen's	1/6	1/6	1/6	1/6	1/6	1/5	1/3	11½	11½	11½
Scarborough	1/1	1/1	1/1	1/1	1/1	1/-	11½	10	10	10
Sheffield	1/4	1/4	1/4	1/3½	1/3½	—	1/2½	1/0½	1/0½	1/0½
Shrewsbury	8½	11½	1/3	9½	—	8½	7	8½	8½	8½
Southampton	1/1	1/1	1/1	1/1	1/1	1/1	1/-	10½	10½	10½
Southend-on-Sea	10	10	10	10	Piecework	10	9	8	8	8
Southport	1/4	1/4½	1/5	1/4	1/4	1/4	1/4	1/-	1/-	1/-
South Shields	1/3½	1/3½	1/3½	1/3½	1/3½	1/3	1/4§	1/0½	1/0½	1/0½
Stockport	1/5§	1/5§	1/5§	1/4§	1/4§§	1/6§	1/5§	1/1	1/1	1/1
Stockton-on-Tees	1/3½	1/3½	1/3½	1/3½	1/2	1/3½	1/3	1/0½	1/0½	1/0½
Stoke-on-Trent	1/2	1/2½	1/2	1/2	1/2	1/1½	1/1½	11½	11½	11½
Stroud	11½	11½	11½	11½	11½	11½	11	9½	9½	9½
Sunderland	1/3½	1/3½	1/3½	1/3½	1/2	1/1½	1/4§	1/0½	1/0½	1/0½
Swansea	1/3	1/3	1/3	1/3	1/3	1/3	1/2	1/-	1/-	1/-
Taunton	1/-	1/-	1/-	1/-	1/-	1/-	11	9½	9½	9½
Torquay	1/-	1/-	1/-	1/-	:/-	1/-	1/-	10	10	10
Wakefield	1/2½§	1/3§	1/2½§	1/2½§	1/2½§	1/3§	1/ ½§	11½	11½	11½
Walsall	1/2	1/2	1/2	1/2	1/2	1/2	1/0½	11½	11½	11½
Warrington	1/6§	1/6§	1/6§	1/6§	1/6§	1/6§	1/5½	1/2½§	1/2½§	1/3½§
West Bromwich	1/3½	1/3½	1/3½	1/4	1/3½	1/3	1/1½	1/0½	1/0½	1/0½
Wigan	1/5½§	1/5½§	1/5½§	1/5½§	1/5½	1/5½§	1/5½	1/2½	1/2§	1/2½
Windsor	1/-	1/-	1/-	1/-	1/	1/-	10½	9	9	9
Wolverhampton	1/2	1/2	1/2	1/2	1/2	1/2	1/0½	11	11	11
Worcester	1/-	1/-	1	1/-	1/-	1/-	10	10½	10½	10½
York	1/2§	1/2§	1/2§	1/2§	1/-	1/-	11	11½§	11½§	11½§

The Masons' rate given is for bankers: fixers usually ½d. per hour extra. * War bonus of 2s. per week granted. † War bonus of 3s. per week granted. ‡ War bonus of 3s. 6d. per week granted. ‡‡ War bonus of 4s. per week granted. ¶ War bonus of 7s. 6d. per week granted. § These rates include the 12½ per cent. bonus. [The above rates, unless otherwise shown, are exclusive of 12½ per cent. bonus.—ED.]

PROPOSED NEW BUILDINGS AND OTHER WORKS.*

IN these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works, at the time of publication, have been actually commenced. Abbreviations:—T.C. for Town Council; U.D.C. for Urban District Council; R.D.C. for Rural District Council; E.C. for Education Committee; L.G.B. for Local Government Board; B.G. for Board of Guardians; L.C.C. for London County Council; B.C. for Borough Council; and P.C. for Parish Council.

BAKEWELL.—The war memorial will probably be a cottage hospital. His Honour Judge Alan Macpherson is chairman of a committee to inquire into the question of a site.

BELFAST.—Plans passed:—Grain store, Nelson-street, for J. W. & H. Duncan; addition to factory, Bedford-street, for J. F. Haig & Co., Ltd.; additions to boiling house, Sandy-row, for T. Hunter; addition to engineering works, Great George's-street and Columbus-street, for J. Hines & Sons, Ltd.; motor house, Knutsford-drive, for Mr. T. Fallon; shed, Springfield-road, for B. Hughes, Ltd.; re-roofing, premises near Tate's-avenue, for Spence & Johnstone, Ltd.; additions to house, Downview-avenue, for Mrs. D. Grainger; alterations and additions to bakery premises, Ardilea-street, for the City Bakery Co.; additions to workshop, Sandy-row, for Mr. J. Reid; motor house, at rear of Elmwood-avenue, for Mr. H. M. Pollock; house in Earlswood-road, for Mr. W. Madeil.

BUCKIE.—Plans passed:—House, 184, Portessie, for Mr. W. M'Lean; net store, 116, Portessie, for Mr. John Smith.

CHARLTON.—The Board of Education has approved of the plans of the managers for enlarging the Church of England School.

CHELSEA.—The Kensington Licensing Justices have sanctioned plans for alterations at the Queen's Head, 27, Tryon-street, Chelsea.

DERBY.—The L.G.B. has authorised the Corporation to proceed with the preparation of their town planning scheme, which embraces portions of the adjacent rural areas.—Directions have been issued by the L.G.B. that the scheme of the Board of Guardians for the provision of a new workhouse infirmary, at an estimated cost of £100,000, should be proceeded with, so as to be in readiness for inviting tenders. It is now proposed to make provision also for additional quarters for the enlarged nursing staff.

GRIMSBY.—The Grimsby Hospital Committee has decided to build a convalescent home to cost £50,000 as a war memorial. The Marquis of Lincolnshire offered to present a site of 38 acres at Humberstone, and £5,000 was raised at the meeting.

KENDAL.—Speaking at the T.C., Alderman W. Edmondson said that one of the first and most important problems to which they would have to direct their energies in the new municipal year was the proper housing of the working classes. The Corporation had secured, at a cost of £1,650, a fine site of over 22 acres, where he hoped to see a fine suburb of working-class dwellings.

NEWPORT (MON.).—The T.C. has further discussed the question of applying to Parliament for powers to proceed with the Talybont water scheme, and decided to do so.

NORTHAMPTON.—Plans passed by T.C.:—New lift well, Sharman-road, for Padmore & Barnes, Ltd.; extension of valve store, Kingsthorpe-road, for Advance Motor Co. & Standard Valves, Ltd.; extension of factory, Spencer-street, for Padmore & Barnes, Ltd.

PARK PREWETT.—The Hants Joint Asylums Visiting Committee proposes to ascertain the views of the L.G.B. as to the erection of the engineer's house at the Park Prewett Asylum.

PETERSFIELD.—The assistant county architect has reported to the Southampton C.C. that the Board of Education has approved of the revised plan for the alteration and adaptation of the Dolphin Hotel as a secondary school for girls. The estimated cost of the revised scheme will amount to about £2 000.

ROMFORD.—Plans passed:—Bay window and garage, "Lynton," Balgores-lane, for Mr. A. Webb.

ST. ASAPH.—The R.D.C. has considered the subject of building workmen's dwellings, and is taking steps in regard to the acquisition of sites. The surveyor reports that 70 houses are required.

WANDSWORTH.—Drainage plans passed by B.C.:—Mr. S. Stenning, addition at rear of 217, Balham High-road; Mr. G. W. Beattie, for partial re-drainage of 254, Upper Richmond-road, Putney; Mr. C. F. Harrison, (on behalf of the Corra Engineering Co., Ltd.), for erection of workshop, lavatories, &c., at 28A, Ruvigny-gardens, Putney; by Mr. R. A. Jewell, for erection of addition to workshop at 74, East Hill, Fairfield; by Mr. H. Hunt, for erection of workshop and water-closet at 99, Lower Richmond-road, Putney; and by Mr. J. Long, for sanitary improvements, at the Wandle Colour Works, Garratt-lane, Fairfield.

FIRES.

GRIMSBY.—Damage estimated at £1,500 has been done by fire, which broke out at the warehouse and offices of Sir George Sleight, steam trawler owner, Fish Dock.

SKIPTON.—Damage has been done to the Midland Hotel as the result of a fire.

SOUTHPORT.—An outbreak of fire has caused damage amounting to several thousands of pounds at the Southport Co-operative Society's warehouse, Churchtown.

*See also our list of Competitions, Contracts, &c., p. 350

PRICES CURRENT OF MATERIALS.*

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry. Sheet lead and lead pipe have been released from control.—Ed.]

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge. £ s. d.
Best Stocks 3 3 6

Per 1000, Delivered at London Goods Stations.

	£ s. d.		£ s. d.
Flettons	2 7 5	Best Blue Pressed Staffordshire ...	7 18 6
Best Stourbridge Fire bricks	9 5 0	Do. Bullnose ..	8 3 6
GLAZED BRICKS—			
Best White, Ivory, and Salt Glazed Stretchers ..	17 17 6	D'ble Str'tch'rs	23 7 6
Headers	17 7 6	D'ble Headers	20 7 6
Quoins, Bullnose and 4½in. Flats	21 7 6	One Side and two Ends ..	24 7 6
		Two Sides and one End	25 7 6
		Splays and Squints.....	22 17 6

Second Quality, £1 per 1,000 less than best.
Glazed bricks priced at so much each, 50 per cent. advance on list.
Permission to be obtained from Director of Supplies for Flettons, Wire Cuts, &c.

	s. d.		
Thames Ballast	17 0	per yard,	delivered
Pit Sand	16 0		
Thames Sand	17 0	„ „	2 miles
Best Washed Sand	17 0	„ „	radius
½in. Shingle for Ferro-Concrete	15 0	„ „	Paddington.

Per ton, delivered.

	£ s. d.		£ s. d.
Best Portland Cement	3 8 0 ..		3 11 0

Do. £2 16s. 0d. alongside in 80-ton lots.
Ferrocrete 2s. 6d. per ton extra on above.
Best Ground Blue Lias Lime 2 2 6 at rly. depot.
NOTE.—The cement or lime is exclusive of the ordinary charge for sacks. The sacks are charged at 2s. 6d. each and credited at 2s. each if returned in good condition within three months.
Grey Stone Lime ..... 47s. 0d. per ton delivered.
Stourbridge Fireclay in s'cks 37s. 6d. per ton at rly. dpt.

STONE.

	s. d.
BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube.....	1 7
Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube	1 8½
Do. do. delivered on road waggons at Nine Elms Depot	1 9½
PORTLAND STONE—	
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L.& S.W.R., South Lambeth Station, G.W.R., and Mileage Station G.W.R., per ft. cube	2 10½
Do. do. delivered on road waggons at above stations, per ft. cube..	2 11½

White basebed, 2d. per ft. cube extra.
NOTE.—½d. ft. cube extra for every foot over 20 ft. *average.*

RANDOM BLOCKS—Per Ft. Cube, delivered at Rly. Dpot.	s. d.		s. d.
Ancaster in blocks	2 10	Closeburn Red Freestone	3 0
Beer in blocks ...	1 9	Red & White Mansfield random block	4 8
Grinshill in blocks	2 6	Yellow Magnesian Limestone do. do	3 9
Darley Dale in blocks	2 10		

YORK STONE, BLUE—*Robin Hood Quality.*
Delivered at any Goods Station London. s. d.
Scappled random blocks ..... Per Ft. Cube 5 8
6 in. sawn two sides landings to sizes (under 30 ft. super.) ..... Per Ft. Super 4 6
6 in. rubbed two sides, ditto ..... „ 4 11
3 in. sawn two sides slabs (random sizes) „ 1 11
2 in. to 2½ in. sawn one side slabs (random sizes) ..... „ 1 3
1½ in. to 2 in. ditto, ditto ..... „ 1 1
HARD YORK—
Delivered at any Goods Station London.
Scappled random blocks ..... Per Ft. Cube 4 9
6 in. sawn two sides landing to sizes (under 40ft. super.) ..... Per Ft. Super 4 0
6 in. rubbed two sides ditto ..... „ 5 0
in. sawn two sides slabs (random sizes) „ 1 11
2 in. self-faced random flags .. Per Yard Super 6 0

WOOD.

TIMBER CONTROL ORDER, 1918.

Pursuant to paragraph 3 of the Timber Control Order, 1918, the Controller of Timber Supplies hereby gives notice that until further notice the following shall be the maximum prices at which imported timber may be sold. These prices are per standard landed and in store.

WHITE SEA REDWOOD

	1st £	2nd £	3rd £	4th £		1st £	2nd £	3rd £	4th £
4 × 11	59	57	55	53	2 × 9	53	51	49	47
4 × 9	56	54	52	50	2 × 8	52	50	48	46
4 × 8	53	51	49	47	2 × 7	52	50	48	46
4 × 7	53	51	49	47	3 × 6	47			
2½ & 3 × 11	58	56	54	51	2½ × 6	47			
2½ & 3 × 9	53	51	49	47	3 × 5	46			
3 × 8	52	50	48	46	2½ × 5	46			
3 × 7	52	50	48	46	2 × 6	47			
2½ & 7/8	52	50	48	46	2 × 5	45			
2 × 11	58	56	54	51	2 × 4	45			

unsorted

UNSORTED LARCHWOOD at 3rd Archangel Redwood Prices.
Boards, 1st and 2nd, £2 10s. extra.
Boards, 3rd and 4th, £1 10s. extra.

WHITE SEA WHITEWOOD.

	1st £	2nd £	3rd £		1st £	2nd £	3rd £
3 × 11	57	55	50	3 × 8 u/s ..	48		
3 × 10	52	52	49	3 × 7 u/s ..	48		
3 × 9	52	50	48	2½ & 2 × 6 u/s	48		

	£ s. d.		£ s. d.
2½ & 2 × 7 u/s..	48 0 0	2½ × 5 u/s ..	46 0 0
3 × 6½ u/s....	47 10 0	3 × 5 u/s....	46 0 0
2 × 6½ u/s....	47 10 0	2 × 5 u/s....	45 0 0
2½ & 3 × 6 u/s..	47 0 0	2 × 4 u/s....	45 0 0
2 × 6 u/s	47 0 0		

Boards, £1 10s. extra per std.

WOOD (*Continued*).

FEATHER EDGED BOARDS, £50 per std.
SAWN LATHS, 3s. 9d. per bundle.
U/S SLATING BATTENS (yellow and white and strips), £44.
5th ditto, £42.

SWEDISH AND NORWEGIAN FLOORING AND MATCHING.

U/S Red and White.

Per 100ft. super.	Per 100 ft. super
1½in. P.E. at 71/6	¾in. P.E. at 37/-
1¼in. P.E. at 60/-	⅝in. P.E at 31/-
1in. P.E. at 47/-	½in. P.E. at 23/-
⅝in. P.E. at 41/-	

If tongued and grooved or tongued and grooved and matched, 9d. per square extra.

1in. × 11in P.E at £54 — 1in. × 9in. P.E. at £51
1in. × 10in. P.E. at £53 — 1in. × 8in. P.E. at £49

CANADIAN AND AMERICAN YELLOW PINE

	1st £	2nd £	3rd £		1st £	2nd £	3rd £
3 × 12 and up	80	69	67	3 × 8	62	55	53
3 × 11	78	63	61	3 × 7	60	53	51
3 × 10	66	58	56	3 × 4/6.....	58	51	49
3 × 9	64	56	54				

For complete specification and controlled prices, see issue of September 6, page 148.

Dry Wainscot Oak, per ft. super, as inch	0	3	0	..	—	
¼ in. do. do.	0	2	3	..	—	
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0	3	0	..	0 4 0	
Cuba, Mahogany	0	3	0	..	0 4 0	
Teak (Rangoon, Moulmein or Java), per load.. ..	70	0	0	..	85 0 0	
American Whitewood planks, per ft. cube ..	1	8	0	..	1 10 0	
Scotch Glue, per lb.	0	2	8	..	—	

SLATES.

Per 1,000 of 1,200 f.o.r. London.

		£ s. d.
Best Blue Bangor Slates,	20 by 10	21 0 0
„ „ „	16 by 8	10 0 0
First quality „	20 by 10	20 0 0
„ „	16 by 8	10 5 0
Best Blue Portmadoc	20 by 10	20 0 0
„ „	16 by 8	10 0 0
First quality „	20 by 10	19 10 0
„ „	16 by 8	9 15 0

TILES.

Per 1,000 f.o.r. London.

	£ s. d.
Best machine-made tiles from Broseley or Staffordshire district.....	4 15 0
Ditto hand-made ditto.....	5 0 0
Ornamental ditto	5 2 6
Hip and valley tiles (per dozen)	0 9 0

METALS.

JOISTS, GIRDERS, ANGLES, C.I. COLUMNS, &c.
(Prices controlled by Ministry of Munitions.)

WROUGHT-IRON TUBES AND FITTINGS—
(Discount off List for lot of not less than £4 net value delivered direct from works. 5 per cent. less carriage forward if sent from London stocks.)

	Sizes up to and including 2 in. Tubes.	Fittings.	Sizes 2½ in. to 6 in. Tubes.	Fittings.
Gas	31½	35	36½	37½
Water	26½	32½	31½	35
Steam	21½	30	26½	32½
Galvanised Gas ..	8½	27½	12½	30
„ Water	—	25	3½	27½
„ Steam	6½ *on*	22½	2½ *on*	25

L.C.C. COATED SOIL PIPES—London Prices ex works.

	Pipe. s. d.	Bends, stock angles. s. d.	Branches, stock angles s. d.
2 in. per yd. in 6 fts..	4 2	.. 3 1	.. 3 8
2½ in. „ ..	4 9	.. 3 5	.. 4 7
3 in. „ ..	5 10	.. 3 8	.. 5 6
3½ in. „ ..	6 6	.. 4 7	.. 6 6
4 in. „ ..	7 1	.. 5 2	.. 7 3

RAIN-WATER PIPES, &c.

	Pipe. s. d.	Bends, stock angles. s. d.	Branches, stock angles s. d.
2 in. per yd. in 6fts. plain	2 9½	.. 1 8½	.. 2 4½
2½ in. „ „ ..	3 1	.. 1 11½	.. 2 9½
3 in. „ „ ..	3 8	.. 2 6½	.. 3 8
3½ in. „ „ ..	4 5	.. 3 0	.. 4 3½
4 in. „ „ ..	4 10	.. 3 6	.. 5 3

L.C.C. DRAIN PIPES,—9 ft. lengths. London Prices.
4 in., 7s. 7d. .. 5 in., 9s. 4d .. 6 in., 10s. 9d.

IRON—

Per ton in London.	£ s. d.		£ s. d.
Common Bars	16 10 0	to	17 0 0
Staffordshire Crown Bars good merchant quality	17 0 0	..	17 10 0
Staffordshire "Marked Bars"	18 0 0	..	19 0 0
Mild Steel Bars	21 0 0	..	21 10 0
Steel Bars, Ferro-Concrete quality, basis price ..	19 10 0	..	20 0 0
Hoop Iron, basis price ..	20 10 0	..	21 10 0
„ „ Galvanised ..	33 0 0	..	—
Sheet Iron Black—			
Ordinary sizes to 20 g. ..	23 0 0	..	23 10 0
„ „ 24 g. ..	24 0 0	..	24 10 0
„ „ 26 g. ..	25 0 0	..	26 0 0
Sheet Iron, Galvanised flat, ordinary quality—			
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g. ..	34 0 0	..	—
Ordinary sizes to 22 g. and 24 g.....	34 0 0	..	34 10 0
Ordinary sizes to 26 g. ..	36 0 0	..	36 10 0

METALS (*Continued*).

	Per ton in London. £ s. d.		£ s. d.
Sheet Iron, Galvanised, flat, best quality—			
Ordinary sizes to 20 g. ..	35 10 0	..	—
„ „ 22 g. and 24 g.	36 0 0	..	—
Ordinary sizes to 26 g. ..	39 0 0	..	—
Galvanised Corrugated Sheets—			
Ordinary sizes, 6 ft. to 8 ft. 20 g.....	23 0 0	..	Nominal prices only.
Ordinary sizes, 22 g. and 24 g.....	33 10 0	..	
Ordinary sizes, 26 g.	32 10 0	..	
Best Soft Steel Sheets, 6 ft. by 2 ft. to 3 ft. to 20 g. and thicker.....	24 10 0	..	—
Best Soft Steel Sheets, 20 g. and 24 g.....	24 15 0	..	—
Best Soft Steel Sheets, 26 g.	26 10 0	..	—
Cut Nails, 3 in. to 6 in.	29 0 0	..	30 0 0

(Under 3 in., usual trade extras.)

LEAD, &c.

Delivered in London.

	£ s. d.		£ s. d.
LEAD—Sheet, English, 4 lb. and up	40 0 0	..	—
Pipe in coils	40 10 0	..	—
Soil Pipe	42 10 0	..	—
Compo pipe	44 10 0	..	—

NOTE—Country delivery, 20s. per ton extra; lots under 5 cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. cwt. extra.

COPPER—			
Strong Sheet ....per lb.	0 2 3		Class A certificate required for all Copper, Tin and Solder purchases.
Thin „ .... „	0 2 4		
Copper nails .... „	0 2 3		
Copper wire .... „	0 2 4		
TIN—English Ingots „	0 3 9		
SOLDER—Plumbers' „	0 1 10		
Tinmen's..... „	0 2 4		
Blowpipe ..... „	0 2 8		

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES AND IN SQUARES IN ORDINARY SIZES.

	Per Ft.		Per Ft.
15 oz. fourths	7d.	32 oz. fourths	10d.
„ thirds	7½d.	„ thirds	11d.
21 „ fourths	8d.	Fluted, Obscured and Enamelled Sheet,	
„ thirds	8½d.		
26 „ fourths	9d.	15 oz.	7½d.
„ thirds	9½d.	21 „	8½d.

Extra price according to size and substance for squares cut from stock, and only small quantities can be supplied without an A Certificate.

ENGLISH ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft.
¼ Rolled plate	5½d.
⅜ Rough rolled and rough cast plate.....	6d.
½ Rough rolled and rough cast plate.....	8½d.
Figured Rolled, Oxford Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish white	6½d.
Ditto, tinted	7½d.
Rolled Sheet	6d.
White Rolled Cathedral.....	6d.
Tinted do.	6½d.

PAINTS, &c.

		£ s. d.
Raw Linseed Oil	in pipes..... per gallon	0 8 0
„ „ „	in barrels .... „	0 8 4
„ „ „	in drums .... „	0 8 7
Boiled „	in barrels .... „	0 8 7
„ „ „	in drums .... „	0 9 0

Orders for these oils must be accompanied by a certificate from the Ministry of Food (Oil and Fat Department), St. Stephen's House, Westminster, S.W.1

Turpentine in barrels	„	0 11 9
„ in drums	„	0 11 3
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)		60 10 0
GENUINE WHITE LEAD PAINT— "Blackfriars," "Nine Elms," "Park," and other best brands (in 14 lb. tins) not less than 5 cwt. lots..per ton delivered		83 10 0
Red Lead, Dry (packages extra) .. per ton		47 0 0

Orders for White and Red Lead and any Paint containing Lead must be accompanied by a certificate or licence, which can be obtained from the Director of Materials [A.N. 2 (E.)], Hotel Victoria, S.W.

Best Linseed Oil Putty	per cwt.	1 6	0
Filocol.....	per cwt.	1 0	6

VARNISHES, &c.

	Per gallon. £ s. d.
Fine Pale Oak	0 16 0
Pale Copal Oak	0 17 0
Superfine Pale Elastic Oak.....	0 19 0
Fine Extra Hard Church Oak	0 18 0
Superfine Hard-drying Oak, for seats of Churches	1 1 0
Superfine Pale Elastic Carriage	1 1 0
Fine Pale Maple	0 14 0
Finest Pale Durable Copal.....	1 5 0
Extra Pale French Oil	1 4 0
Eggshell Flatting.....	1 0 0
White Pale Enamel	1 6 0
Extra Pale Paper.....	0 16 0
Best Japan Gold Size	0 12 0
Best Black Japan	0 16 0
Oak and Mahogany Stain	0 12 0
Brunswick Black	0 10 0
Berlin Black.....	0 16 0
Knotting	1 10 0
French and Brush Polish	1 0 0

* The information given on this page has been specially compiled for THE BUILDER and is copyright. Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

Competitions, Contracts, &c.

The date given at the commencement of each paragraph is the latest date when the tender or the names of those willing to submit tenders, may be sent in.

FURNITURE, MATERIALS, etc.

NOVEMBER 25.—**London.**—REFRIGERATORS.—The Commissioners of His Majesty's Works, &c., invite tenders for the supply of cabinet refrigerators. Forms of tender of the Controller of Supplies, H.M. Office of Works, &c., King Charles-street, Westminster, London, S.W. 1.

ENGINEERING, IRON AND STEEL.

DECEMBER 2.—**Ware.**—WATER SOFTENING.—Tenders are invited by the Board of Guardians for the supply of a "Permutet" water softening apparatus for the workhouse. Particulars of Mr. G H. Gisby, Clerk, Union Office, Ware, Herts.

ROAD, SANITARY, AND WATER WORKS.

NOVEMBER 27.—**London.**—ROADS, &C.—The Metropolitan Asylums Board invite separate tenders for: (1) repairs to roads at the Park Fever Hospital, Hither Green, S.E. 13: (2) repairs to roofs at the Eastern Fever Hospital, The Grove, Homerton, E. 9. Specifications at the Office of the Board, Embankment, E.C. 4. Deposit £1.

Auction Sales.

*DECEMBER 10 AND FOLLOWING DAYS.—**Sevenoaks.**—Messrs. F. D. Ibbett & Co. will sell on the premises, St. John's-hill, Sevenoaks, fine stock of well-seasoned sawn timber; also plant and building materials, builder's ironmongery, contents of paint shop, machinery, &c. May be viewed two days prior to sale. Catalogues in due course (1/- each) may be had of the Auctioneers, F. D. Ibbett & Co., F.A.I., 130, High-street, and Station-approach, Sevenoaks.

PATENTS.

APPLICATIONS PUBLISHED.*

119,686.—J. W. Cryer and N. Mangnall: Locking mechanism in connection with hoists, lifts, and the like.

119,701.—R. C. Green: Hydraulic rams for raising water.

119,703.—A. R. J. Wilkinson: Vices or like work-holders.

119,722.—S. Sims & Sons and W. H. Sims: Manufacture of washboards.

119,727.—J. E. Webb: Fire-extinguishers.

119,737.—C. Orr: Ventilating apparatus for buildings.

119,766.—A. G. Strathern: Lifting clamps or dogs.

119,775.—R. & W. Hawthorn, Leslie & Co., and T. N. Waller: Floorings principally for use in connection with oil-fired water-tube boilers.

119,777.—R. Gillespie: Flues of domestic fireplaces.

119,781.—F. G. Hyde: Wedge for axe and hammer handles and the like tools.

119,789.—W. Hall-Jones and B. Highfield-Jones: Buckets.

119,796.—M. A. Aner: Anti-aircraft devices for cities and the like.

* All these Applications are now in the stage in which opposition to the grant of Patents upon them may be made.

NEW COMPANIES.

The particulars quoted below have been compiled by Jordan & Sons, Ltd., Company Registration Agents, of 116 and 117, Chancery-lane, W.C. 2, from the documents available at the Companies Registry:—.

EDWARD & ALEXANDER, LTD. (151,743). Registered October 23. 5, Budge-row, E.C. To carry on the business of engineers, engineers' merchants, contractors, machine and tool makers, &c. Nominal capital, £2,000.

OTO, LTD. (151,749). Registered October 23. 9, River-street, Hammerton-street, Burnley. To manufacture the Oto Patent Fire Grate Coal Saver, and carry on the business of ironfounders, mechanical engineers, manufacturers of agricultural implements, &c. Nominal capital, £2,000.

ROBERT BATCHELLER & SONS, LTD. (151,835). Registered October 31, 1918. Bridge Wharf, Maidstone, Kent. To acquire and carry on the business of timber merchants, key and treenail manufacturers and merchants. Nominal capital £25,000.

THE ATLAS MECHANICAL CO., LTD. (151,766) 52, Queen Victoria-street, E.C. Registered October 25. To carry on the business of engineers, engineers' designers, iron and brass founders, metal workers, machinists, &c. Nominal capital, £1,000.

W. GALL & SONS, LTD. (151,728). Registered October 21. To acquire and carry on the business of manufacturers, merchants and factors of gelatine, glue, size, distemper, &c. Nominal capital, £4,000.

TENDERS.

Communications for insertion under this heading should be addressed to "The Editor," and must reach us *not later than* 12 *noon on Wednesday.*

* Denotes *accepted.* † Denotes *provisionally accepted.*
‡ Denotes *recommended for acceptance.*

DERBY.—For boiler foundations, brickwork, &c., for electricity station, for the Corporation:—
*E Morley & Sons £643

The British Fire Prevention Committee.

The British Fire Prevention Committee have published a leaflet, warning the public to take every precaution against the perils of fire at celebrations and entertainments. It gives ten very useful warnings which might well be considered by all householders. Copies of this "Warning" can be obtained, free of charge, from the Committee at 8, Waterloo place, Pall Mall, S.W., 1, upon written application.

J. J. ETRIDGE, JR. LTD.
SLATE MERCHANTS.
SLATING AND TILING CONTRACTORS.
Inspections and Reports made on
OLD OR FAULTY ROOFS
in any part of the country.
Telephone: Avenue 4940 (two lines), or write
Bethnal Green Slate Works,
BETHNAL GREEN, LONDON, E.

For GLASS SHELVES & TABLE TOPS

Apply to
JAMES CLARK & SON, Ltd.
Railway Arches, Blackfriars Rd., London, S.E. 1
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